P0/2050-84/88/2650.01

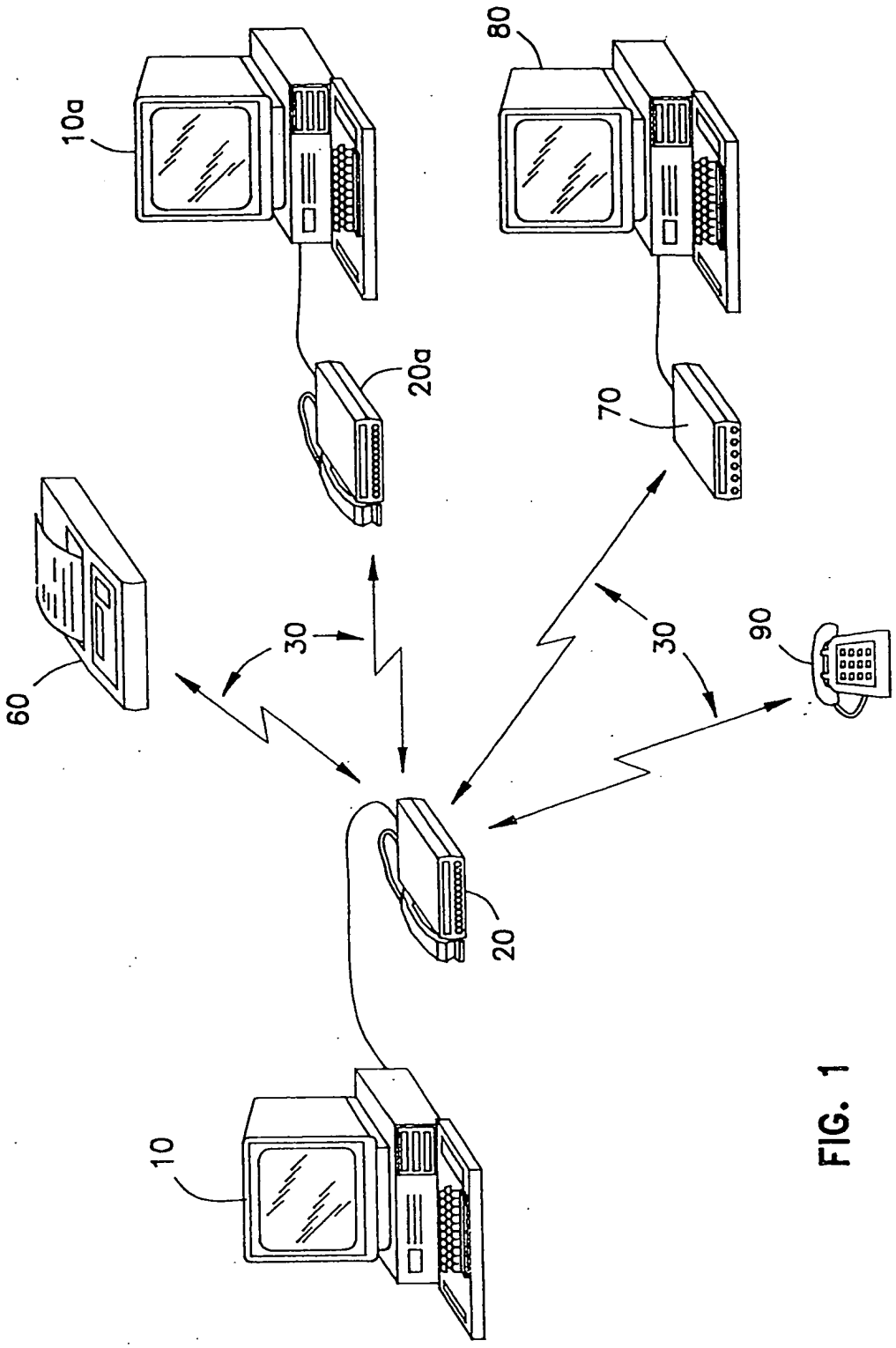


FIG. 1

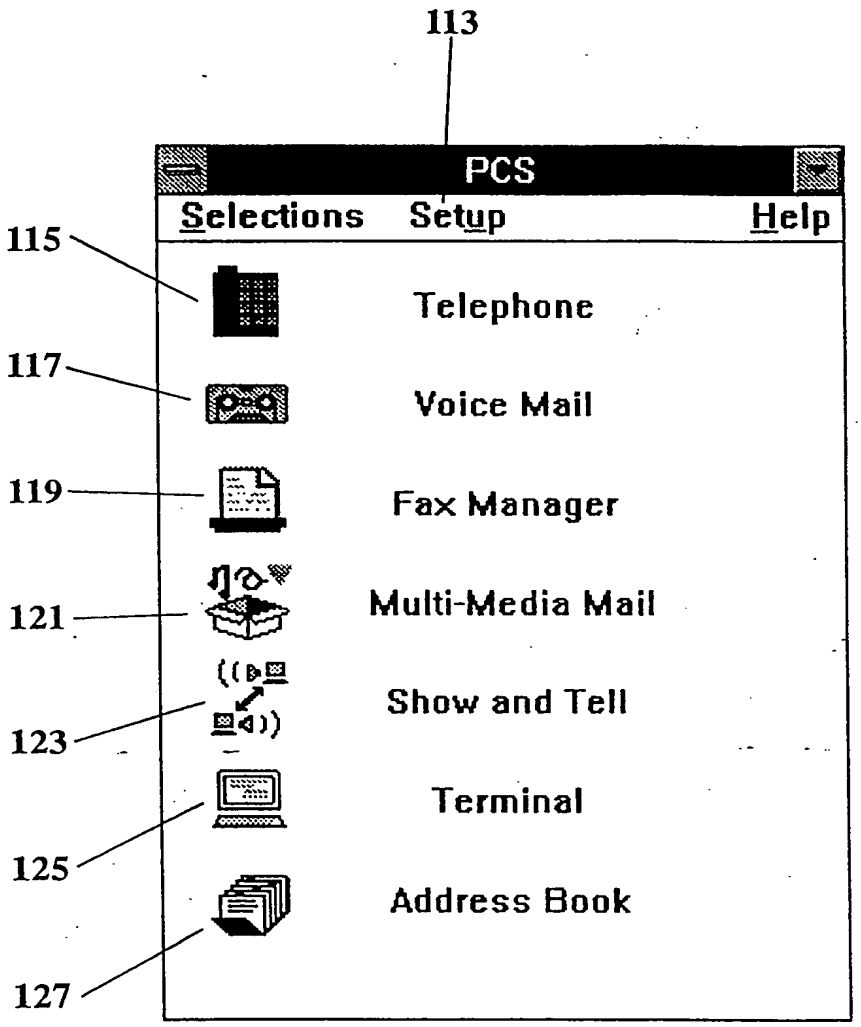

113
PCS
Selections
Setup
Help
115
Telephone
117
Voice Mail
119
Fax Manager
121
Multi-Media Mail
123
Show and Tell
Terminal
125
Address Book
127

Figure 2

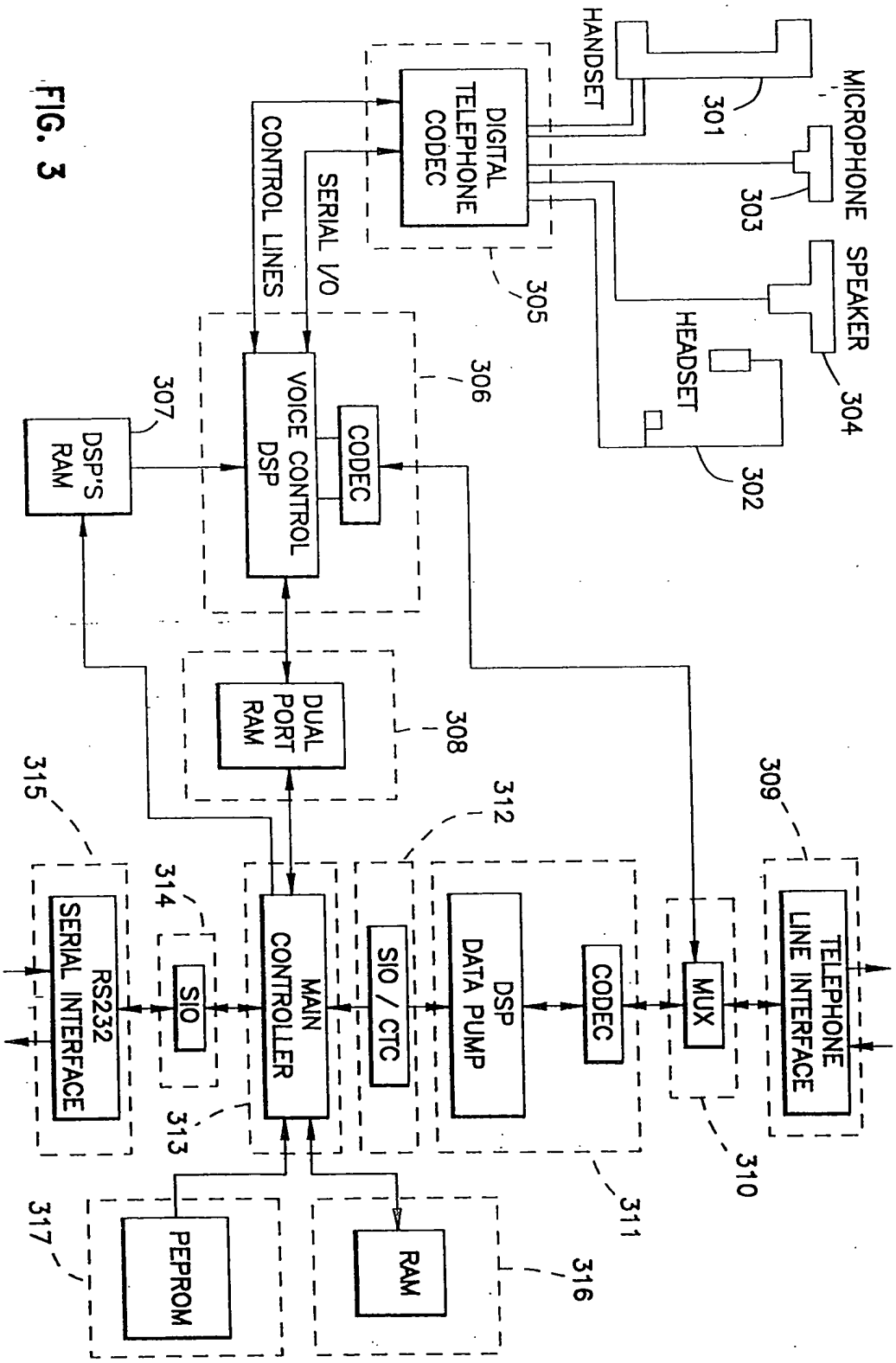


FIG. 3

09768748 - 050701

P02050-84/8/05

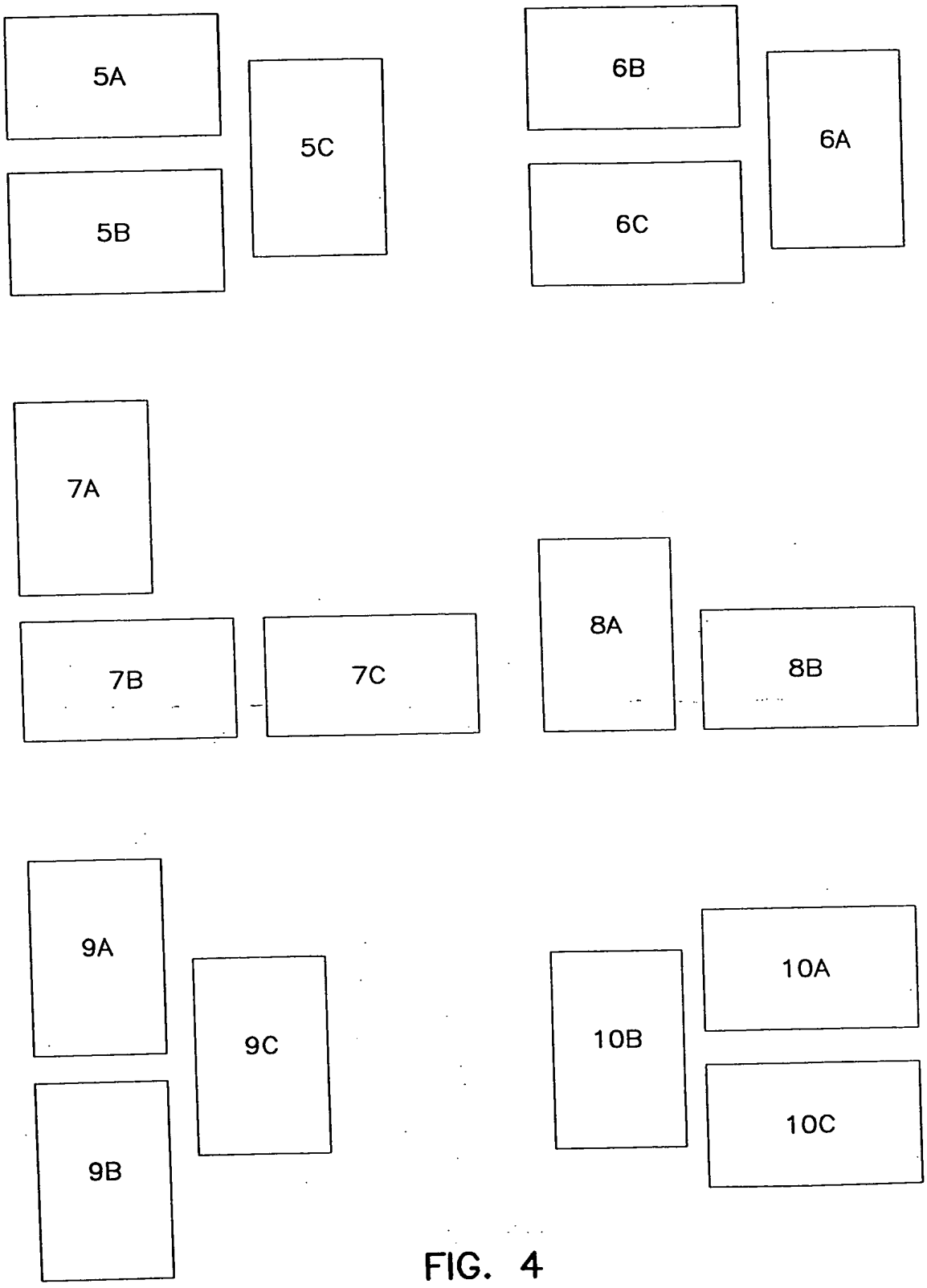


FIG. 4

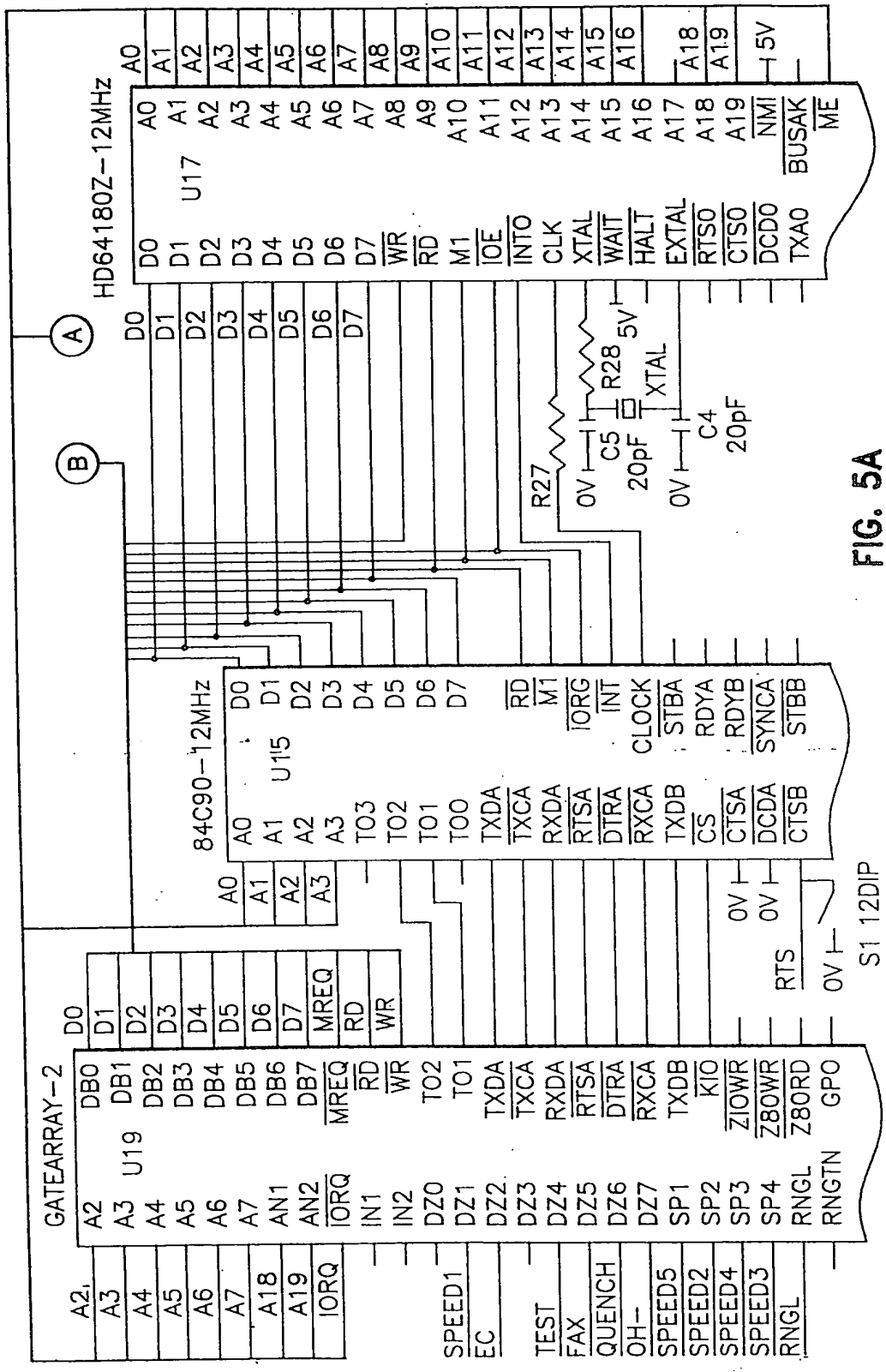

HD64180Z-12MHz
U17
84C90-12MHz
U115
GATEARRAY-2
U19
S1 12DIP
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
A11
A12
A13
A14
A15
A16
A17
A18
A19
5V
D0
D1
D2
D3
D4
D5
D6
D7
WR
RD
M1
IOE
INTO
CLK
XTAL
WAIT
HALT
EXTAL
RTSO
CTSO
DCDO
TXAO
NMI
BUSAK
ME
R27
R28
C5
20pF
C4
20pF
0V
TO3
TO2
TO1
TOO
TXDA
TXCA
RXDA
RTSA
DTRA
RXCA
TXDB
CS
CTSA
DCDA
CTSB
IORG
INT
CLOCK
STBA
RDYA
RDYB
SYNCA
STBB
DB0
DB1
DB2
DB3
DB4
DB5
DB6
DB7
MREQ
IORQ
IN1
IN2
DZ0
DZ1
DZ2
DZ3
DZ4
DZ5
DZ6
DZ7
AN1
AN2
SP1
SP2
SP3
SP4
RNGL
RNGTN
KIO
ZIOWR
Z80WR
Z80RD
GPO
A2,
SPEED1
EC
TEST
FAX
QUENCH
OH-
SPEED5
SPEED2
SPEED4
SPEED3
RTS
A
B

FIG. 5A

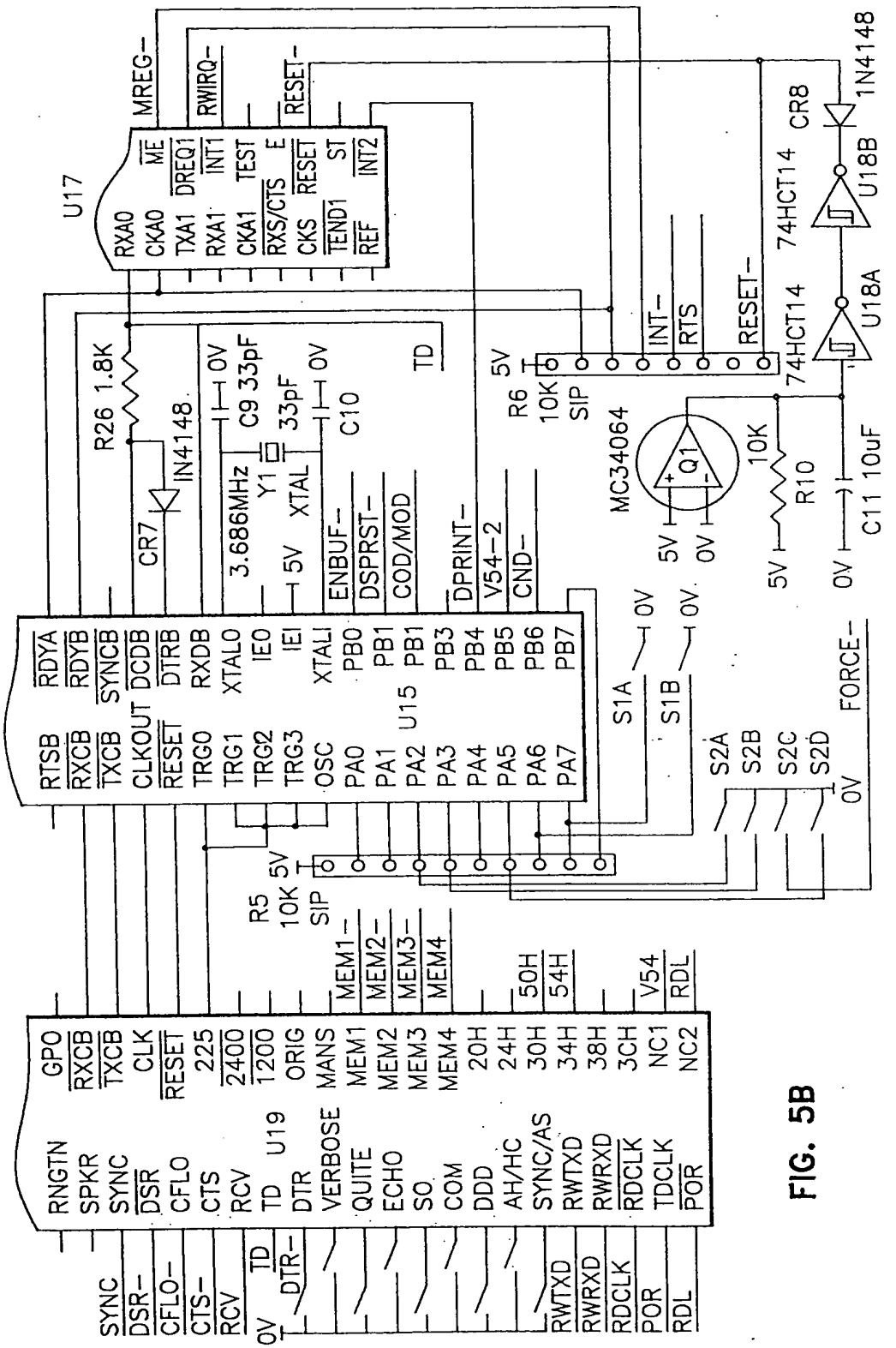

U17
RXA0
CKA0
TXA1
RXA1
CKA1
RXS/CTS
CKS
TEND1
REF
ME
DREQ1
INT1
TEST
E
RESET
ST
INT2
MREG-
RWIRQ-
RESET-
R26 1.8K
IN4148
CR7
3.686MHz
Y1
C9 33pF
33pF
C10
XTAL
ENBUF-
DSPRST-
COD/MOD
DPRINT-
V54-2
CND-
TD
R6 10K SIP
5V
0V
INT-
RTS
RESET-
MC34064
Q1
10K
R10
C11 10uF
74HCT14
U18A
U18B
CR8
1N4148
U15
RDYA
RDYB
SYNCB
DCDB
DTRB
RXDB
XTAL0
IE0
IEI
XTALI
PB0
PB1
PB1
PB3
PB4
PB5
PB6
PB7
RTSB
RXCB
TXCB
CLKOUT
RESET
TRG0
TRG1
TRG2
TRG3
OSC
PA0
PA1
PA2
PA3
PA4
PA5
PA6
PA7
S1A
S1B
S2A
S2B
S2C
S2D
FORCE-
R5 10K SIP
MEM1-
MEM2-
MEM3-
MEM4
U19
GPO
RXCB
TXCB
CLK
RESET
225
2400
1200
ORIG
MANS
MEM1
MEM2
MEM3
MEM4
20H
24H
30H
34H
38H
3CH
NC1
NC2
50H
54H
V54
RDL
RNGTN
SPKR
SYNC
DSR
CFLO
CTS
RCV
TD
DTR
VERBOSE
QUITE
ECHO
SO
COM
DDD
AH/HC
SYNC/AS
RWTXD
RWRXD
RDCLK
TDCLK
POR
SYNC
DSR-
CFLO-
CTS-
RCV
TD
DTR-
RWTXD
RWRXD
RDCLK
POR
RDL

FIG. 5B

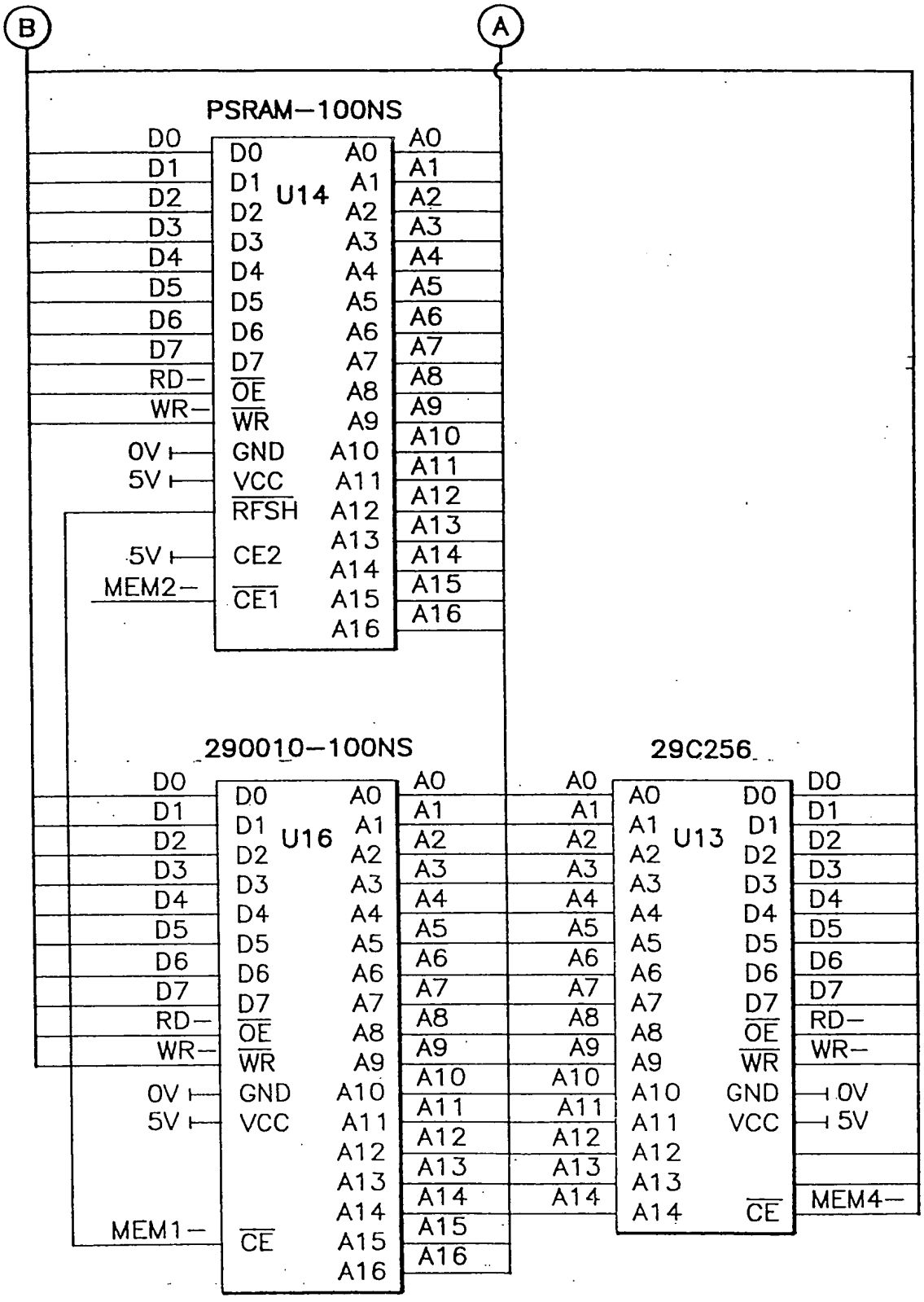

B
A
PSRAM—100NS
U14
D0
D1
D2
D3
D4
D5
D6
D7
RD—
WR—
0V
5V
5V
MEM2—
OE
WR
GND
VCC
RFSH
CE2
CE1
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
A11
A12
A13
A14
A15
A16
290010—100NS
U16
MEM1—
CE
29C256
U13
GND
VCC
MEM4—
CE

FIG. 5C

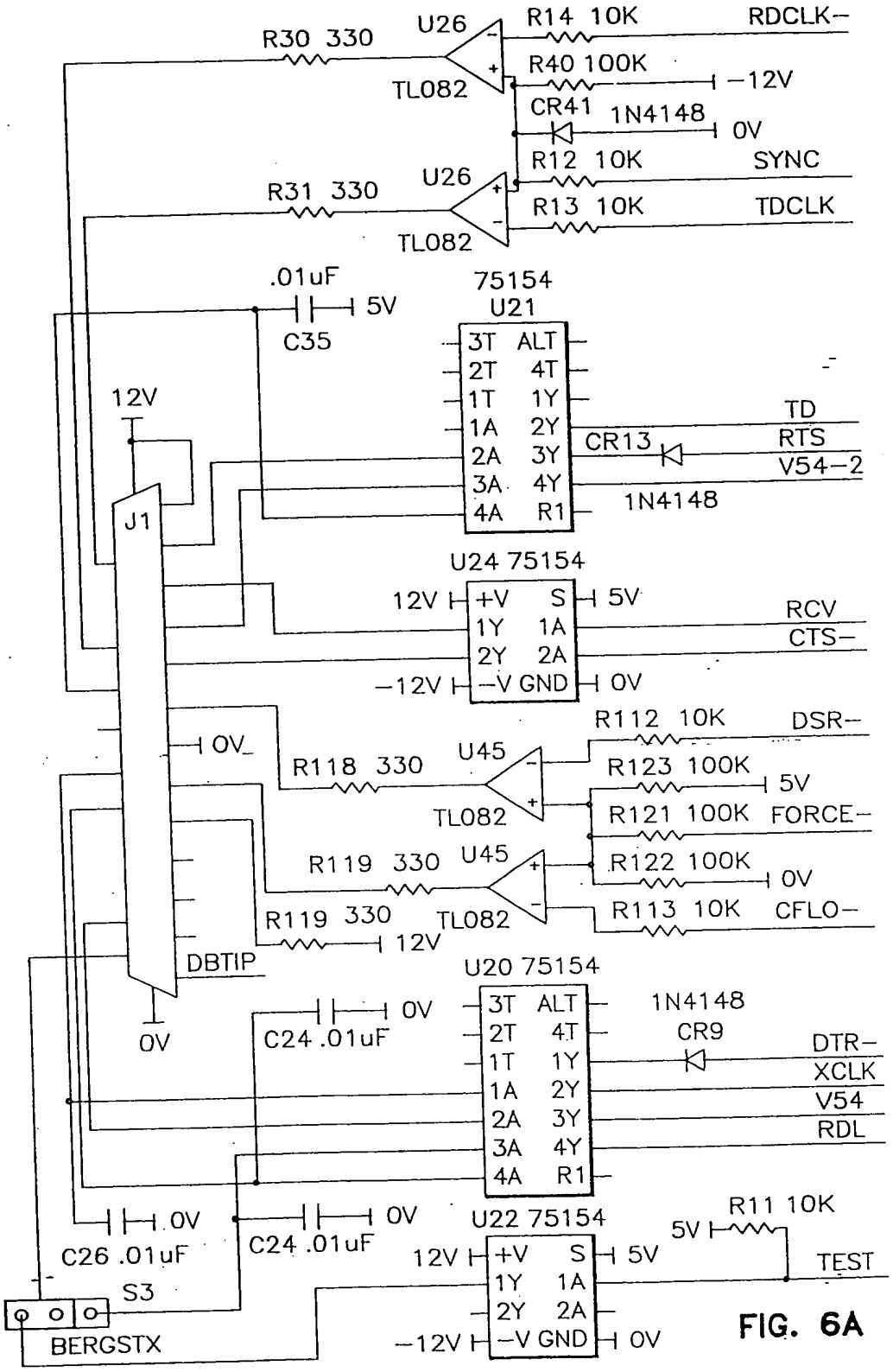

R30 330
U26
TL082
R14 10K
RDCLK–
R40 100K
–12V
CR41
1N4148
0V
R12 10K
SYNC
R31 330
U26
TL082
R13 10K
TDCLK
.01uF
5V
C35
75154
U21
3T ALT
2T 4T
1T 1Y
1A 2Y
2A 3Y
3A 4Y
4A R1
12V
J1
TD
RTS
V54–2
CR13
1N4148
U24 75154
12V +V S 5V
1Y 1A
2Y 2A
–12V –V GND 0V
RCV
CTS–
0V
R118 330
U45
TL082
R112 10K
DSR–
R123 100K
5V
R121 100K
FORCE–
R119 330
U45
TL082
R122 100K
0V
R119 330
12V
R113 10K
CFLO–
DBTIP
0V
U20 75154
3T ALT
2T 4T
1T 1Y
1A 2Y
2A 3Y
3A 4Y
4A R1
0V
C24 .01uF
1N4148
CR9
DTR–
XCLK
V54
RDL
0V
C26 .01uF
0V
C24 .01uF
U22 75154
12V +V S 5V
1Y 1A
2Y 2A
–12V –V GND 0V
5V
R11 10K
TEST
S3
BERGSTX

FIG. 6A

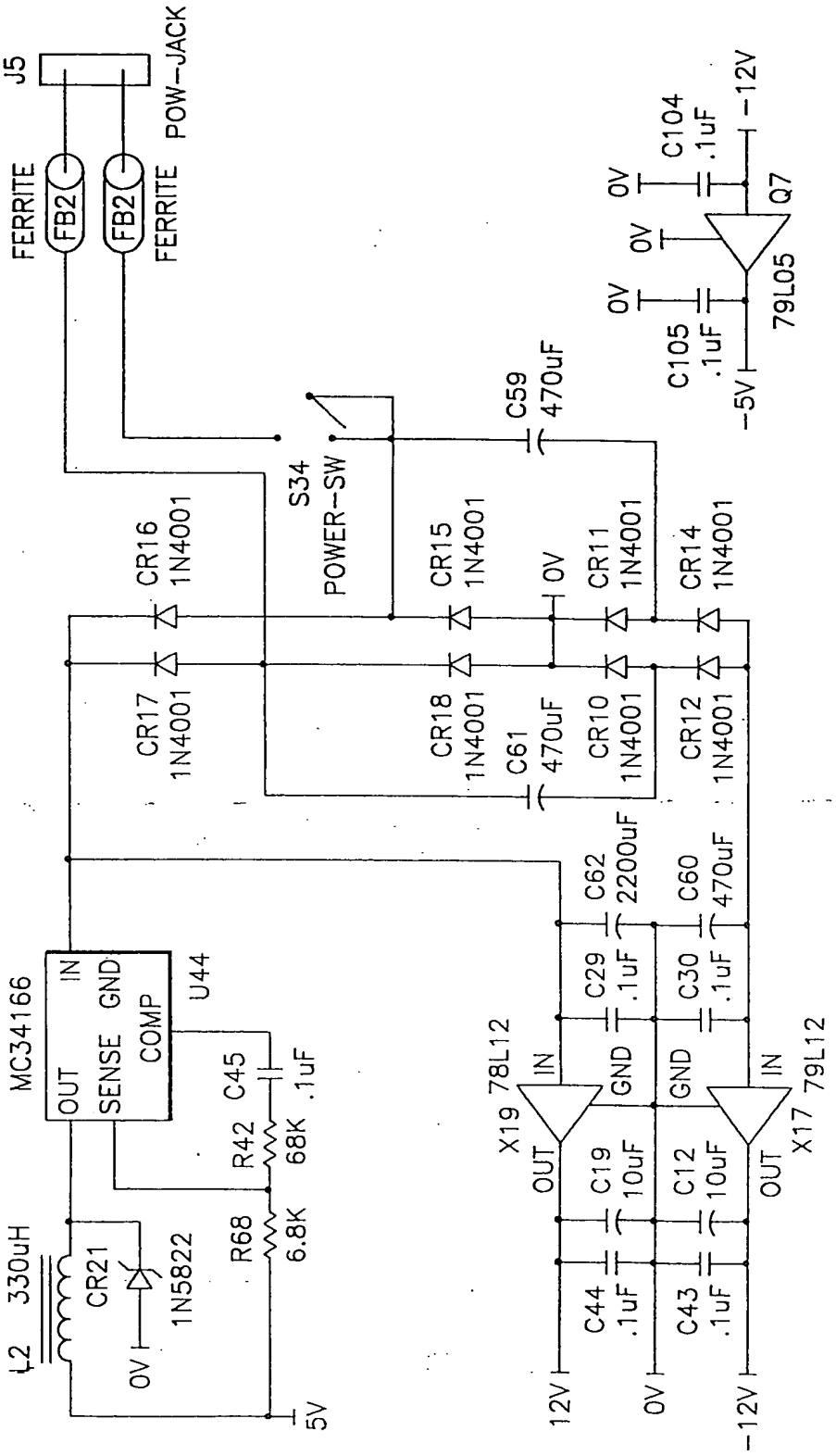

J5
POW-JACK
FERRITE
FB2
FB2
FERRITE
S34
POWER-SW
C59
470uF
CR16
1N4001
CR15
1N4001
CR11
1N4001
CR14
1N4001
CR17
1N4001
CR18
1N4001
C61
470uF
CR10
1N4001
CR12
1N4001
0V
C104
.1uF
-12V
Q7
79L05
C105
.1uF
-5V
C62
2200uF
C60
470uF
MC34166
IN
GND
OUT
SENSE
COMP
U44
C45
.1uF
R42
68K
R68
6.8K
L2
330uH
CR21
1N5822
5V
C29
.1uF
C30
.1uF
X19
78L12
X17
79L12
C19
10uF
C12
10uF
C44
.1uF
C43
.1uF
12V
-12V

FIG. 6B

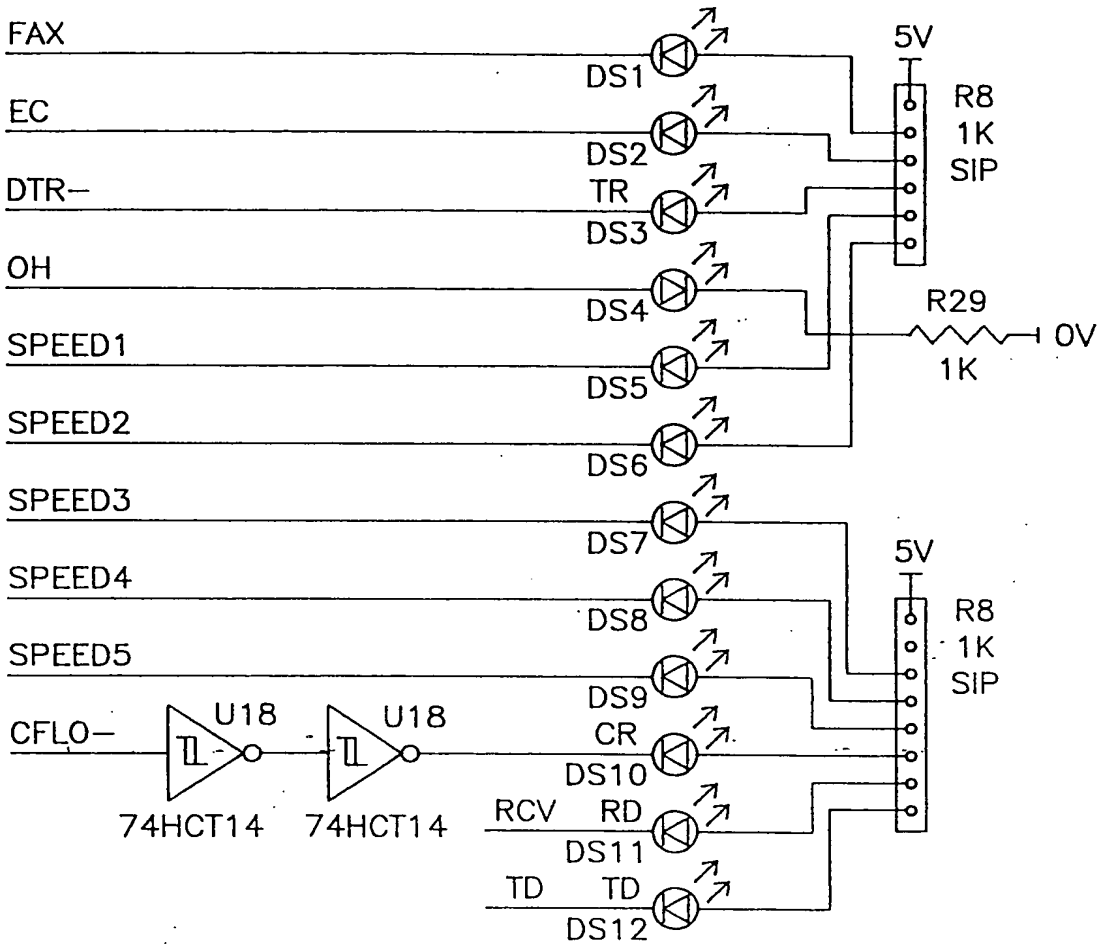

FAX
EC
DTR–
OH
SPEED1
SPEED2
SPEED3
SPEED4
SPEED5
CFLO–
U18
U18
74HCT14
74HCT14
DS1
DS2
TR
DS3
DS4
DS5
DS6
DS7
DS8
DS9
CR
DS10
RCV
RD
DS11
TD
TD
DS12
5V
R8
1K
SIP
R29
1K
0V
5V
R8
1K
SIP

FIG. 6C

EXPRESS MAIL NO. EL776904901US

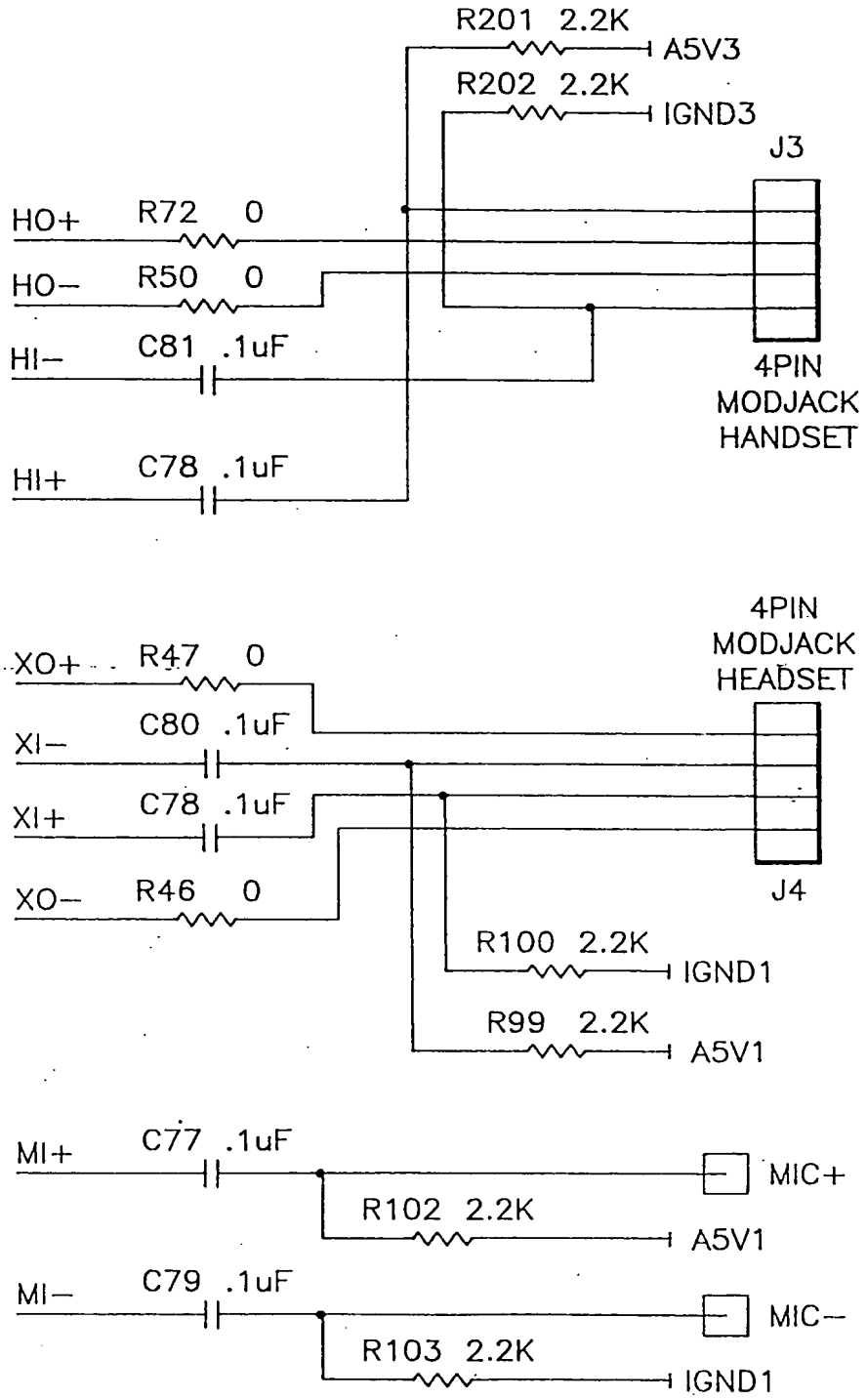
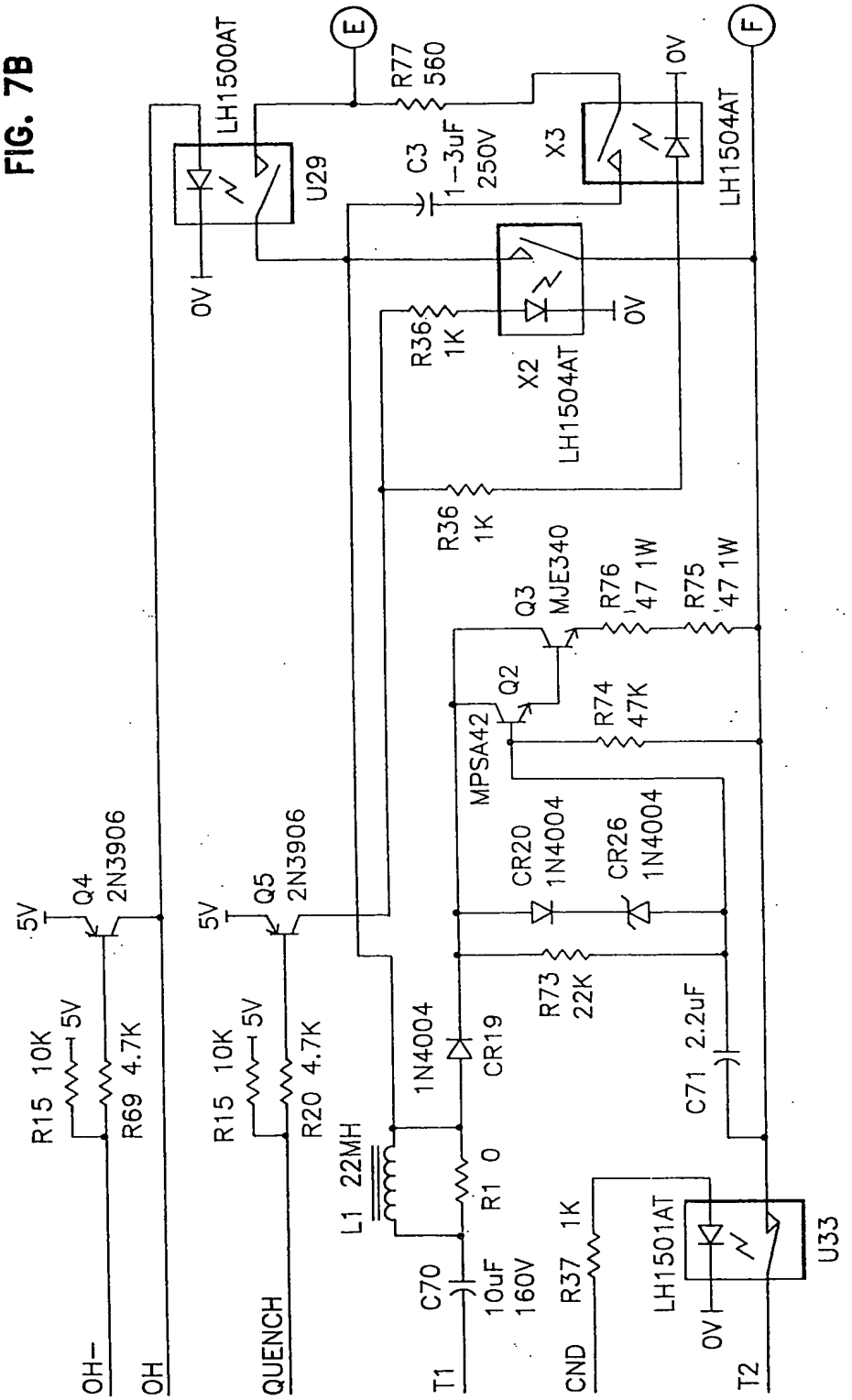


FIG. 7A

FIG. 7B


E
F
LH1500AT
U29
R77
560
C3
1-3uF
250V
X3
0V
LH1504AT
R36
1K
X2
LH1504AT
R36
1K
Q3
MJE340
R76
47 1W
R75
47 1W
Q2
MPSA42
R74
47K
CR20
1N4004
CR26
1N4004
5V
Q4
2N3906
5V
Q5
2N3906
R15 10K
R69 4.7K
R15 10K
R20 4.7K
1N4004
CR19
R73
22K
C71 2.2uF
L1 22MH
R1 0
C70
10uF
160V
R37 1K
LH1501AT
U33
OH-
OH
QUENCH
T1
CND
T2

T0250"8h29/60

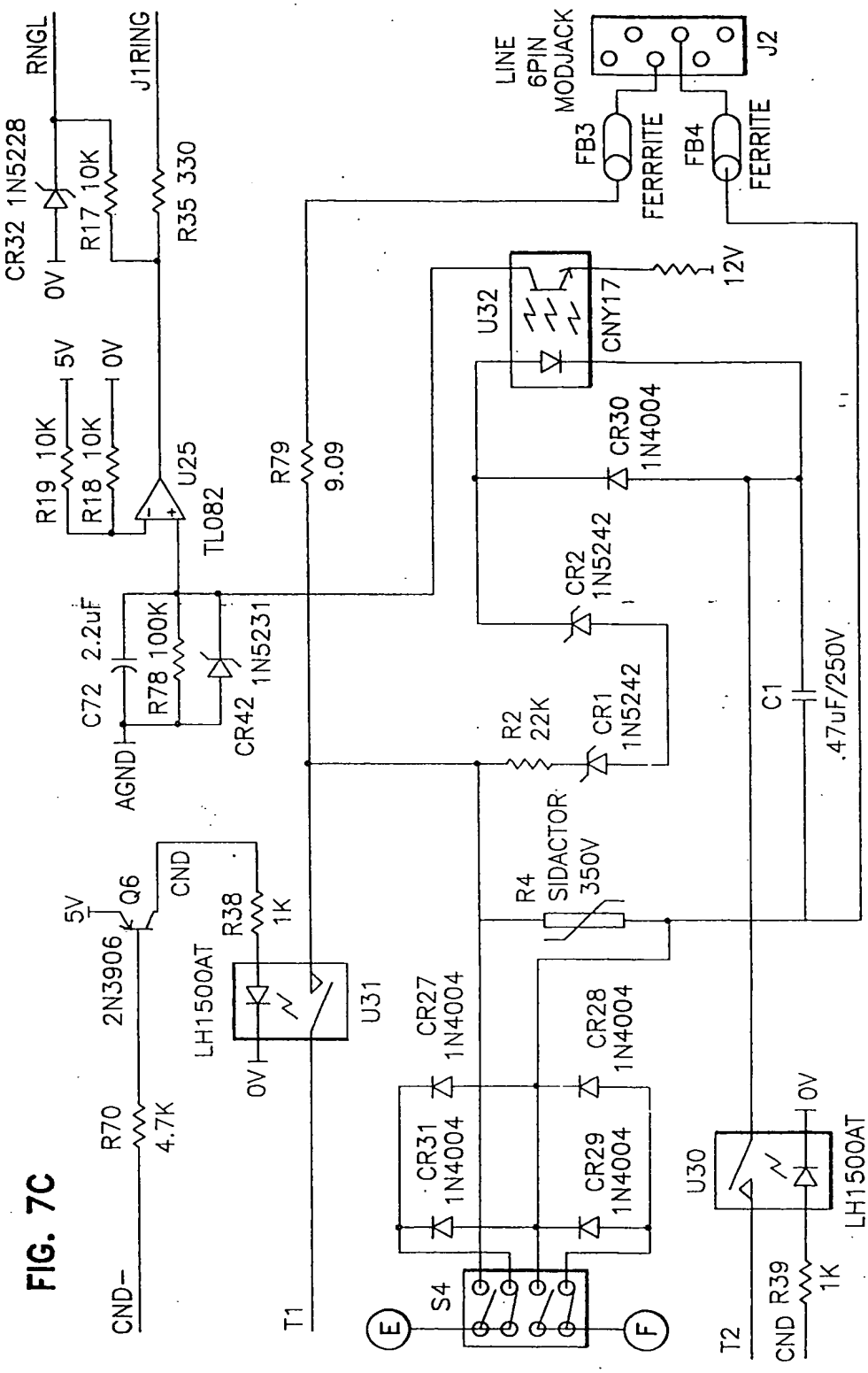
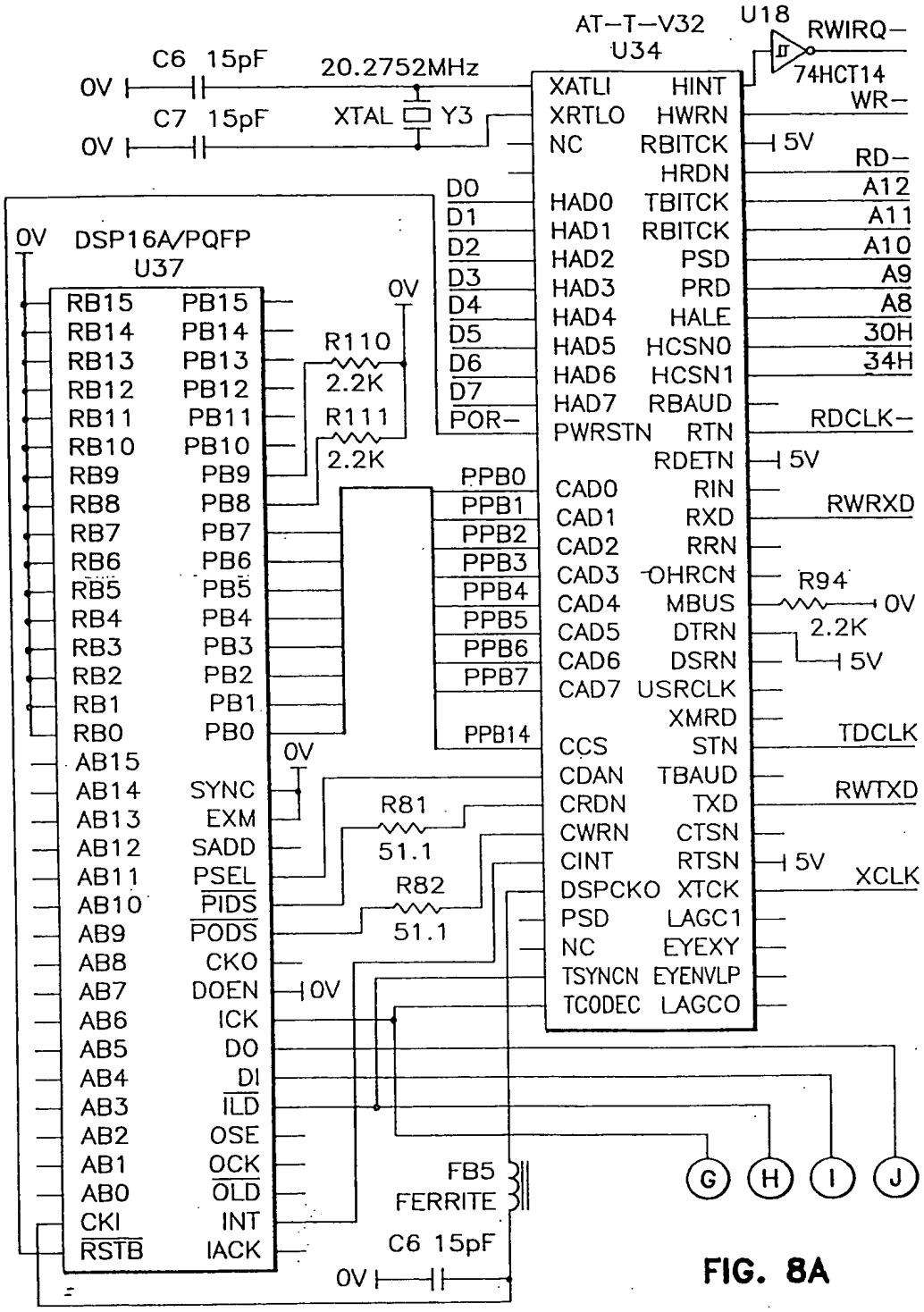


FIG. 7C


AT-T-V32
U34
U18
RWIRQ-
74HCT14
WR-
RD-
C6 15pF
20.2752MHz
C7 15pF
XTAL Y3
0V
5V
XATLI
XRTLO
NC
HINT
HWRN
RBITCK
HRDN
TBITCK
RBITCK
PSD
PRD
HALE
HCSN0
HCSN1
RBAUD
RTN
RDETN
RIN
RXD
RRN
OHRCN
MBUS
DTRN
DSRN
USRCLK
XMRD
STN
TBAUD
TXD
CTSN
RTSN
XTCK
LAGC1
EYEXY
EYENVLP
LAGCO
TCODEC
CAD0
CAD1
CAD2
CAD3
CAD4
CAD5
CAD6
CAD7
CCS
CDAN
CRDN
CWRN
CINT
DSPCKO
PSD
NC
TSYNCN
TCODEC
D0
D1
D2
D3
D4
D5
D6
D7
POR-
HAD0
HAD1
HAD2
HAD3
HAD4
HAD5
HAD6
HAD7
PWRSTN
A12
A11
A10
A9
A8
30H
34H
RDCLK-
RWRXD
TDCLK
RWTXD
XCLK
R94
2.2K
DSP16A/PQFP
U37
RB15
RB14
RB13
RB12
RB11
RB10
RB9
RB8
RB7
RB6
RB5
RB4
RB3
RB2
RB1
RB0
PB15
PB14
PB13
PB12
PB11
PB10
PB9
PB8
PB7
PB6
PB5
PB4
PB3
PB2
PB1
PB0
R110
R111
PPB0
PPB1
PPB2
PPB3
PPB4
PPB5
PPB6
PPB7
PPB14
AB15
AB14
AB13
AB12
AB11
AB10
AB9
AB8
AB7
AB6
AB5
AB4
AB3
AB2
AB1
AB0
CKI
RSTB
SYNC
EXM
SADD
PSEL
PIDS
PODS
CKO
DOEN
ICK
DO
DI
ILD
OSE
OCK
OLD
INT
IACK
R81
R82
51.1
FB5
FERRITE
G
H
I
J
FIG. 8A

TD/050/84/850

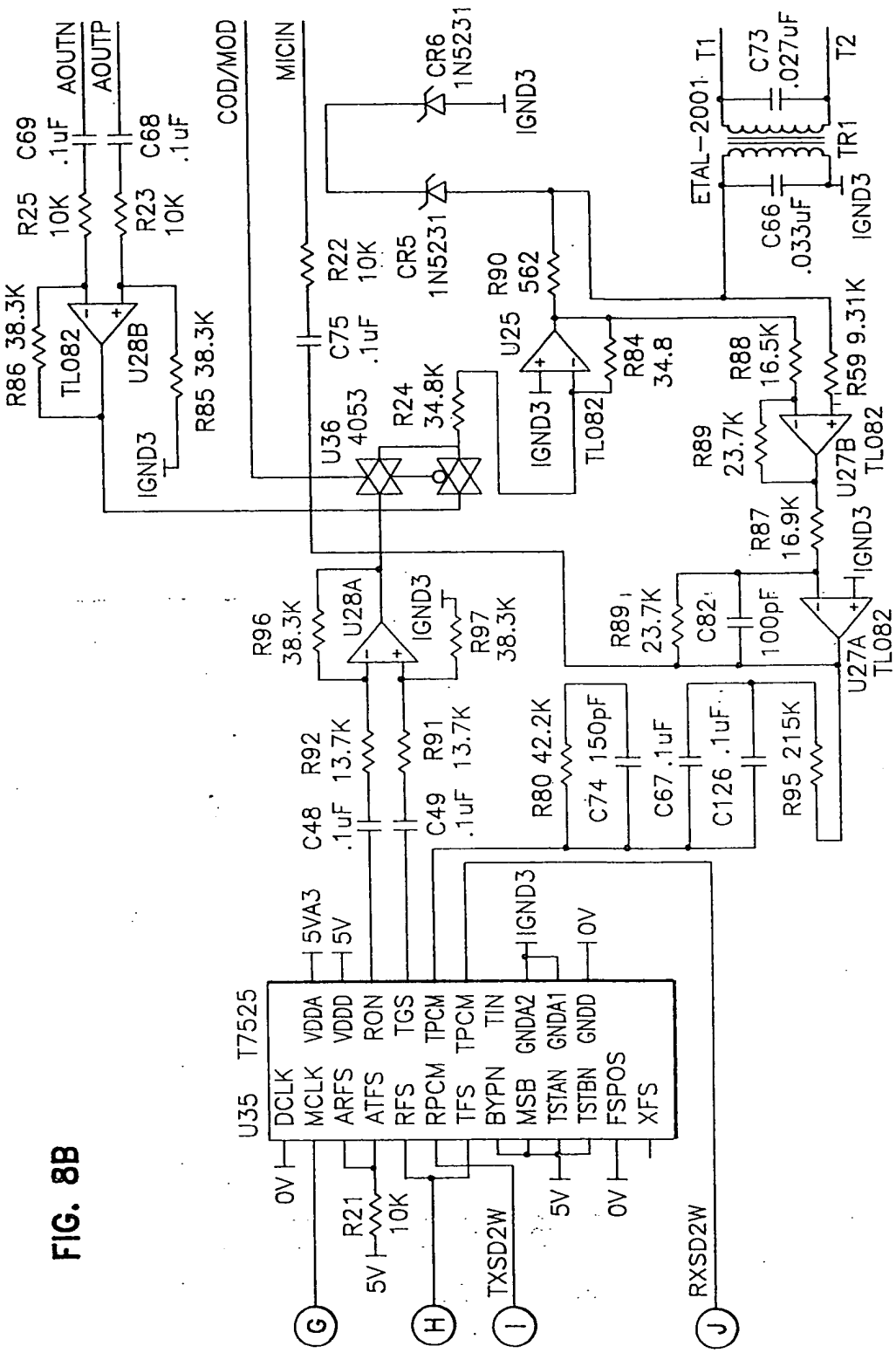


FIG. 8B

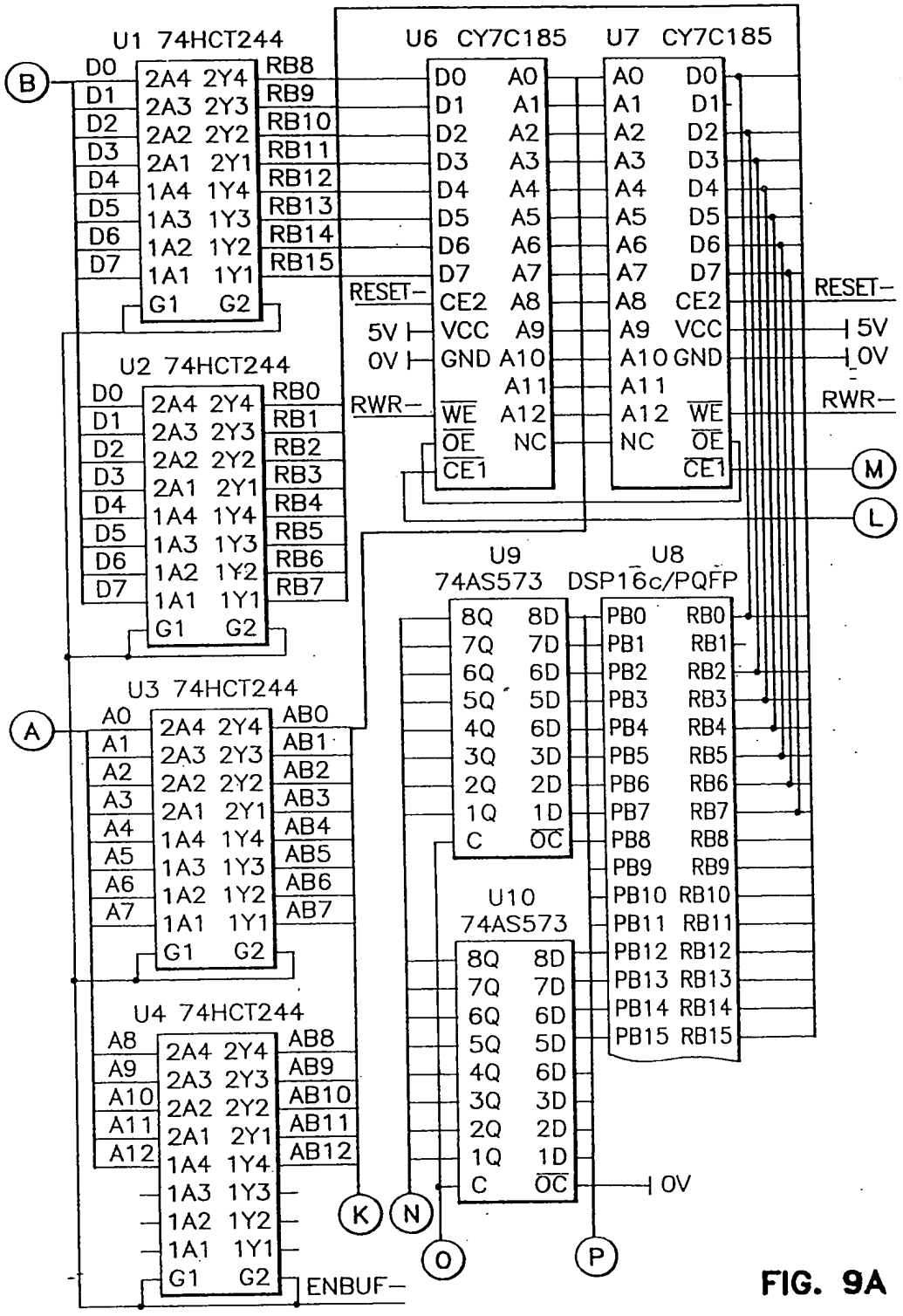
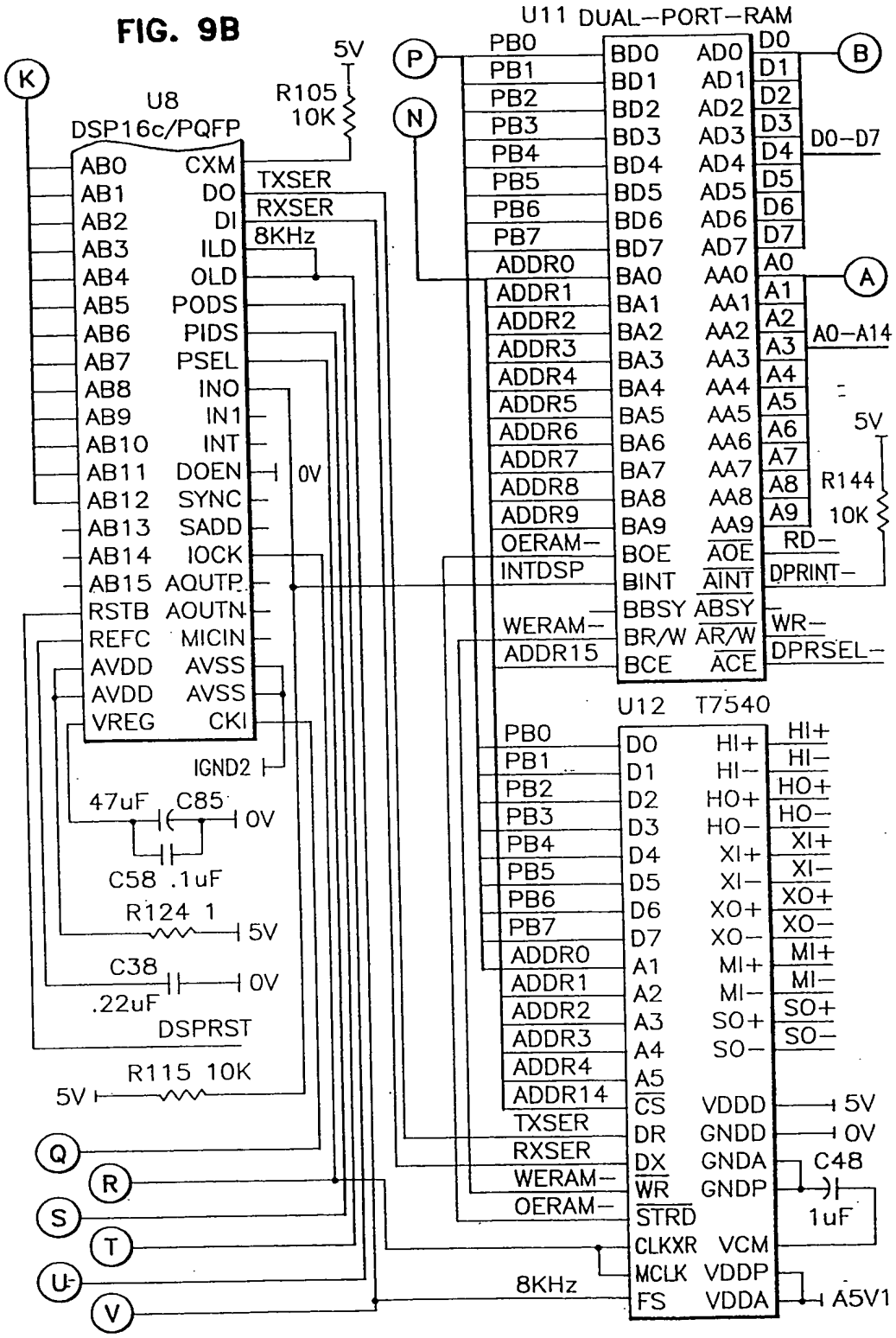

U1 74HCT244
U2 74HCT244
U3 74HCT244
U4 74HCT244
U6 CY7C185
U7 CY7C185
U8 DSP16c/PQFP
U9 74AS573
U10 74AS573
RESET-
RWR-
5V
0V
ENBUF-
A
B
K
L
M
N
O
P

FIG. 9A

FIG. 9B


U11 DUAL-PORT-RAM
U8
DSP16c/PQFP
U12 T7540
5V
R105 10K
TXSER
RXSER
8KHz
0V
IGND2
47uF C85
C58 .1uF
R124 1
C38 .22uF
DSPRST
R115 10K
R144 10K
RD-
DPRINT-
WR-
DPRSEL-
WERAM-
INTDSP
ADDR15
OERAM-
D0-D7
A0-A14
C48 1uF
A5V1
8KHz

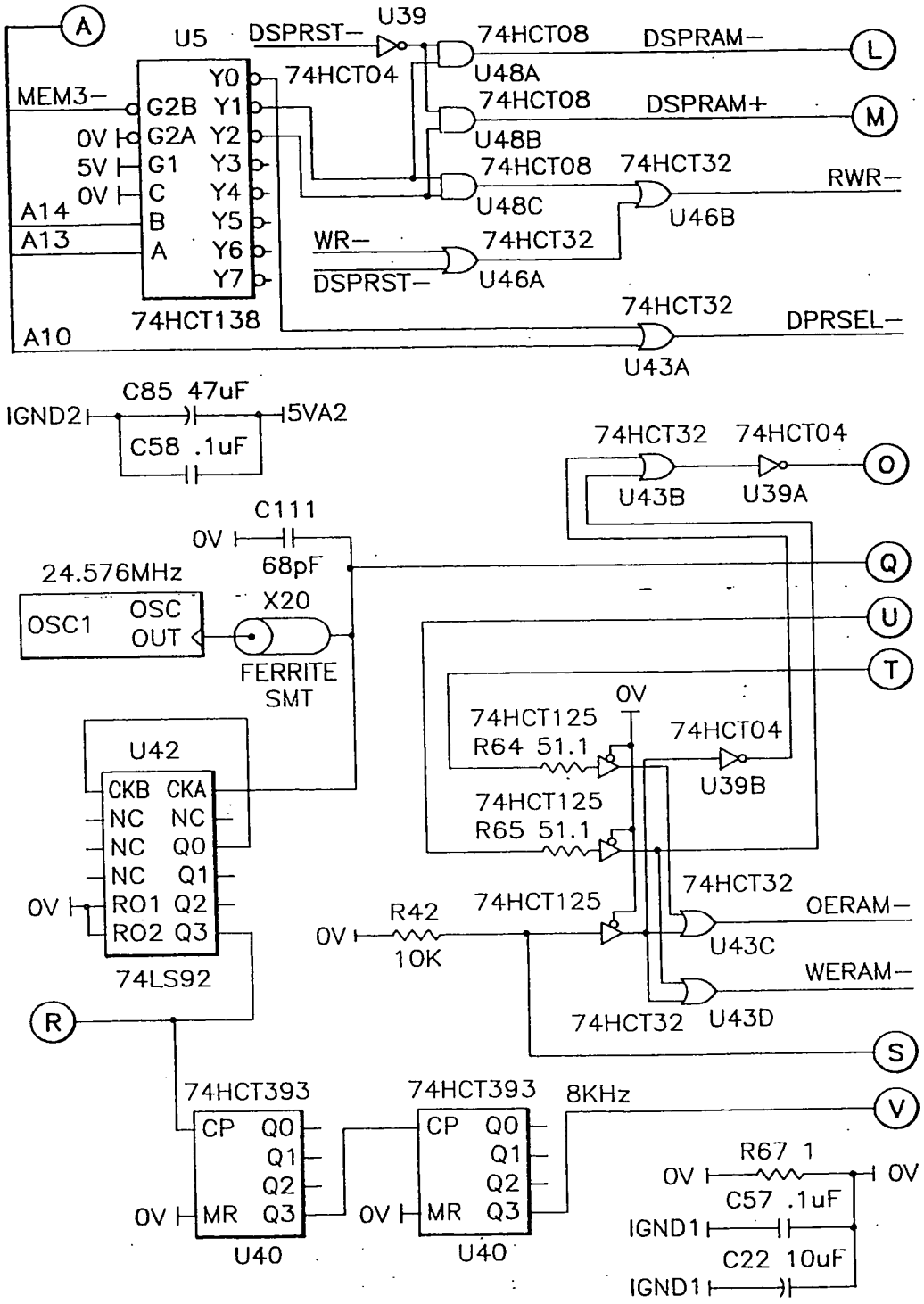


FIG. 9C

10/05/2004 09:48:59

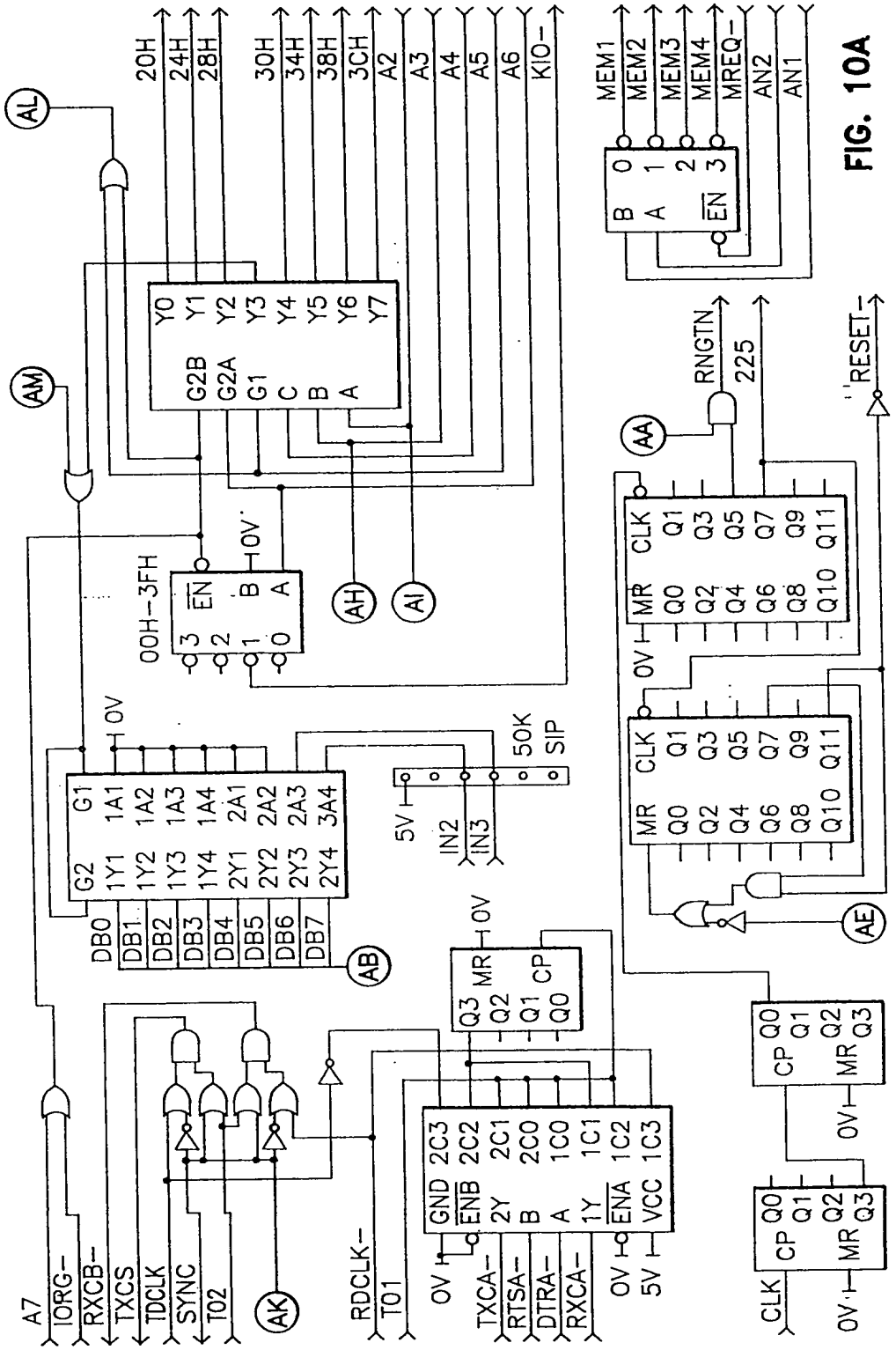
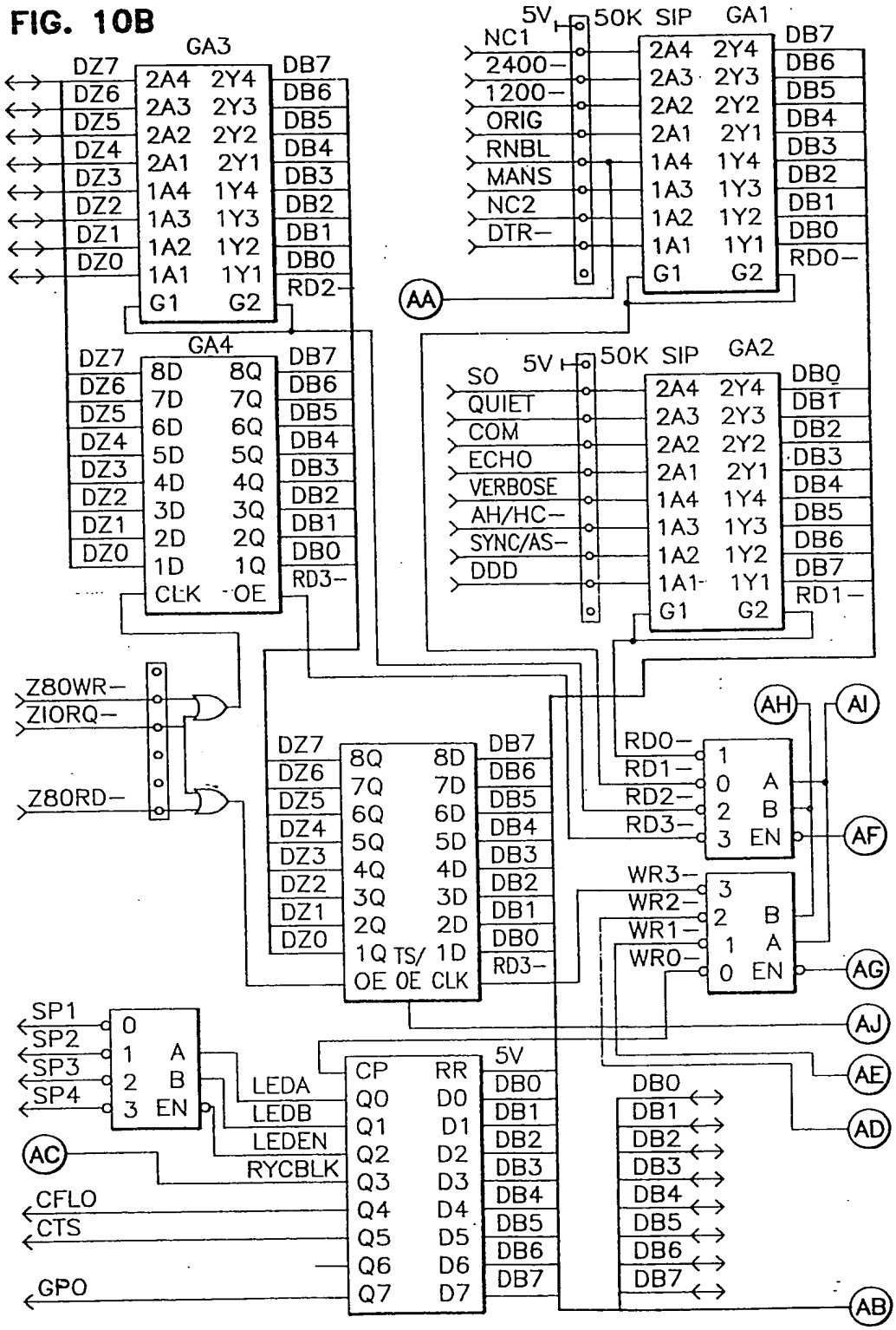

20H
24H
28H
30H
34H
38H
3CH
A2
A3
A4
A5
A6
KIO-
MEM1
MEM2
MEM3
MEM4
MREQ-
AN2
AN1
AL
AM
AH
AI
AA
AE
AB
AK
Y0 Y1 Y2 Y3 Y4 Y5 Y6 Y7
G2B G2A G1 C B A
00H-3FH
0V
RNGTN
225
RESET-
CLK Q1 Q3 Q5 Q7 Q9 Q11
MR Q0 Q2 Q4 Q6 Q8 Q10
G1 1A1 1A2 1A3 1A4 2A1 2A2 2A3 3A4
G2 1Y1 1Y2 1Y3 1Y4 2Y1 2Y2 2Y3 2Y4
DB0 DB1 DB2 DB3 DB4 DB5 DB6 DB7
50K
SIP
5V
IN2
IN3
Q3 MR Q2 Q1 CP Q0
2C3 2C2 2C1 2C0 1C0 1C1 1C2 1C3
GND ENB 2Y B A 1Y ENA VCC
CP Q0 Q1 Q2 MR Q3
A7
IORG-
RXCB-
TXCS
TDCLK
SYNC
T02
T01
RDCLK-
TXCA-
RTSA-
DTRA-
RXCA-
CLK

FIG. 10A

FIG. 10B



10/768748 - 012401

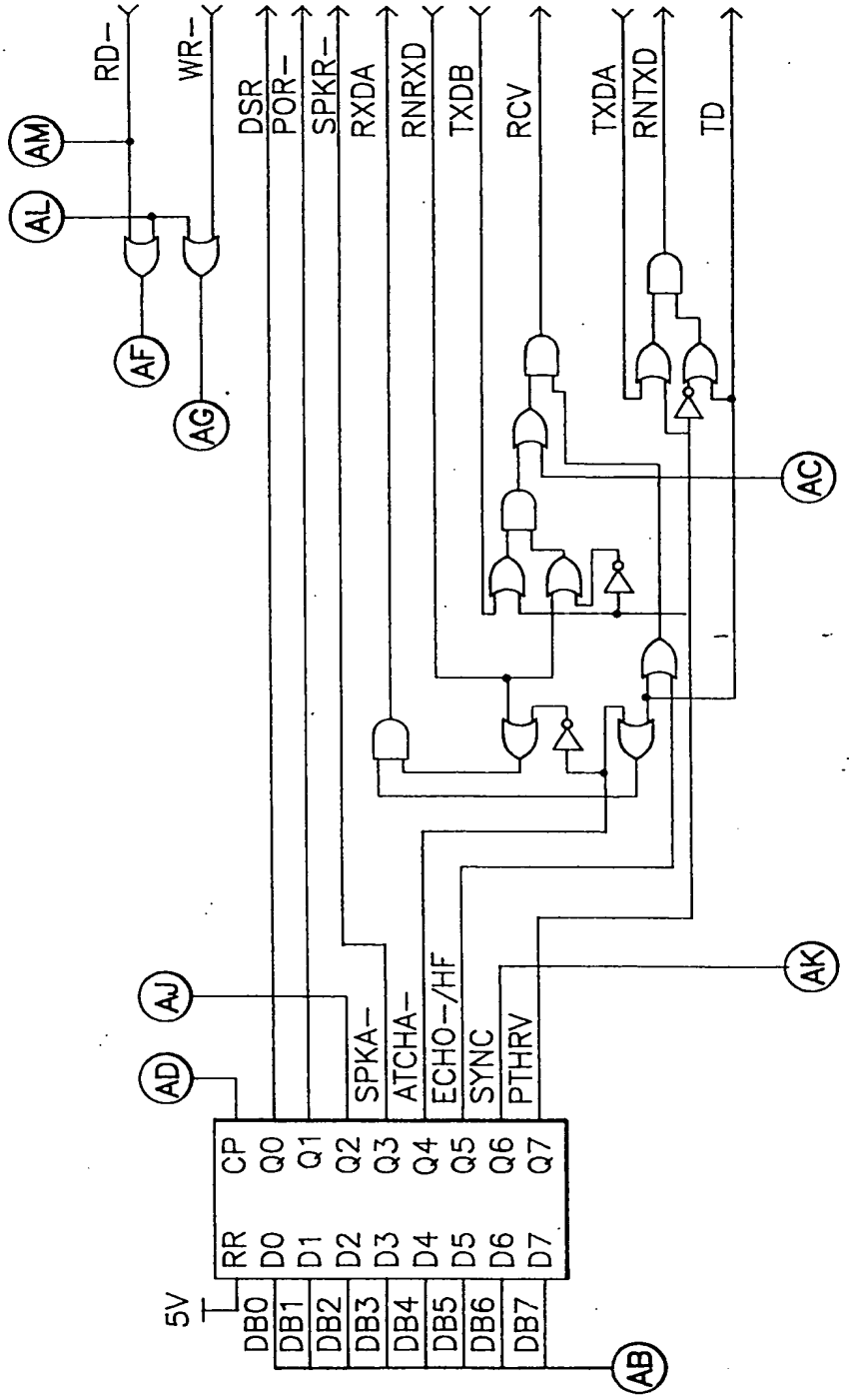


FIG. 10C

10,050,847,960

TO/050 "84/89/60

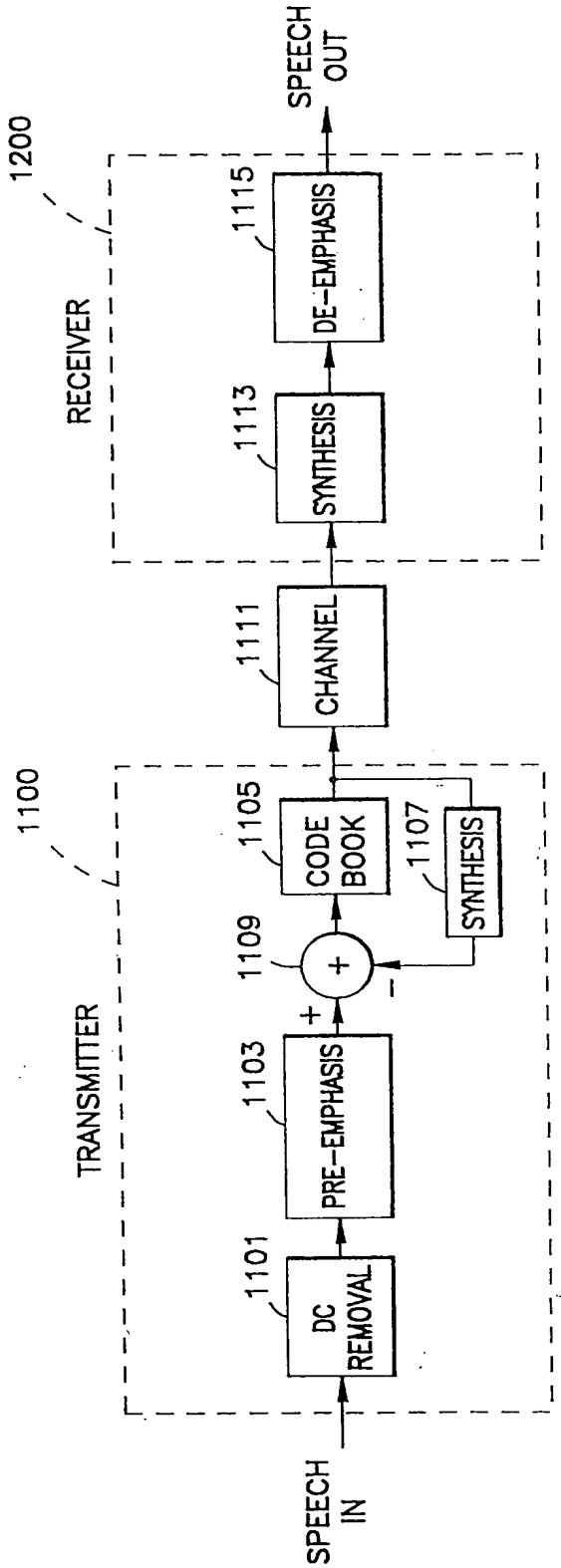


FIG. 11

EL776904901US

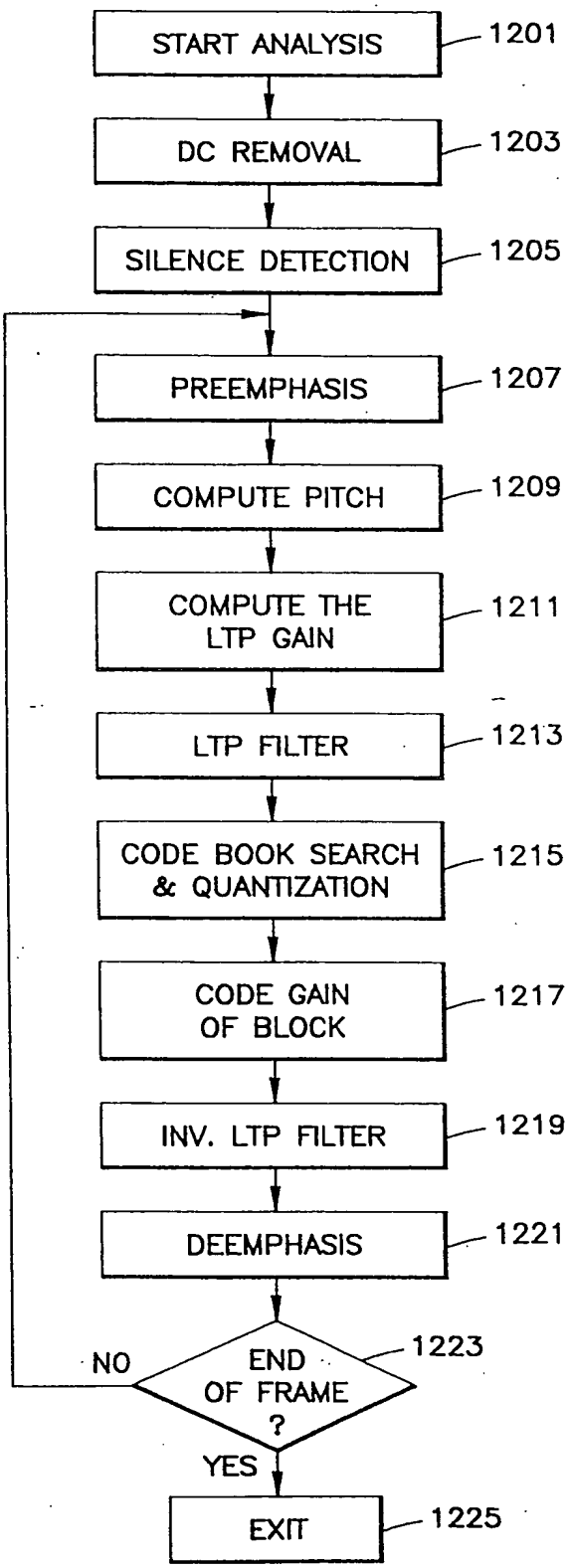


FIG. 12

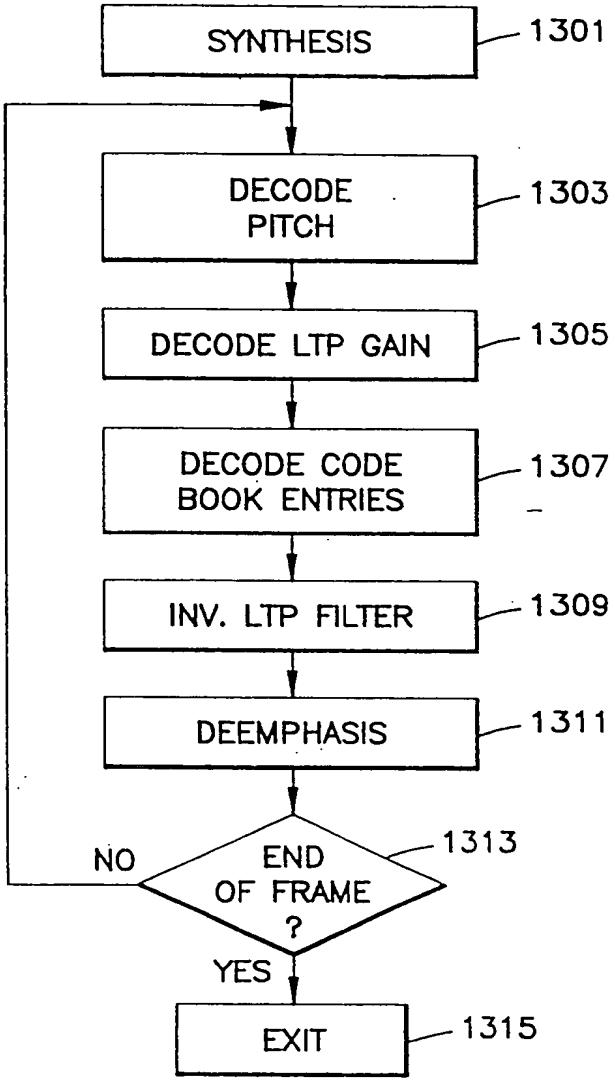

SYNTHESIS
1301
DECODE PITCH
1303
DECODE LTP GAIN
1305
DECODE CODE BOOK ENTRIES
1307
INV. LTP FILTER
1309
DEEMPHASIS
1311
NO
END OF FRAME ?
1313
YES
EXIT
1315

FIG. 13

T0/050"EH/83/60

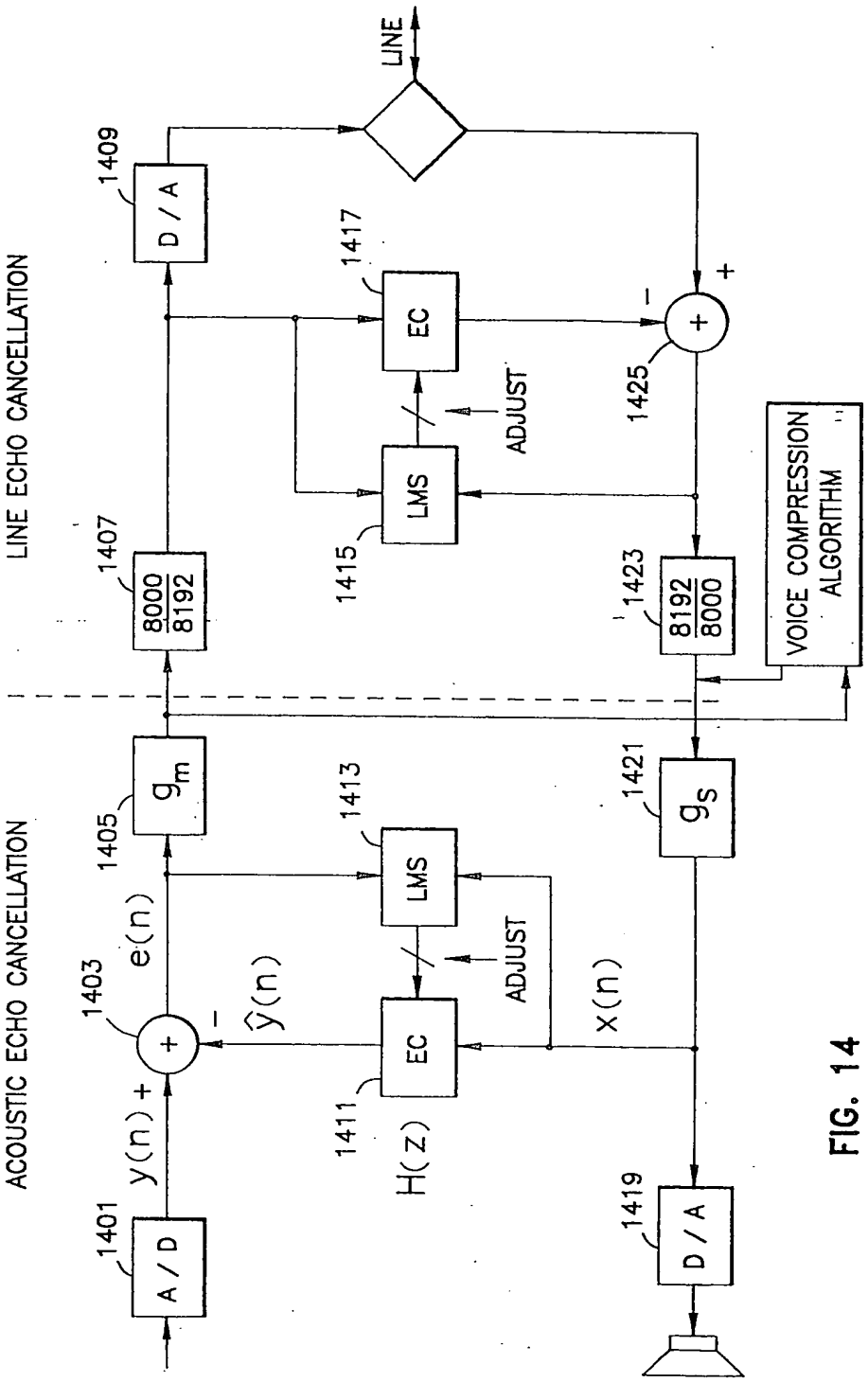


FIG. 14

EL776904901US

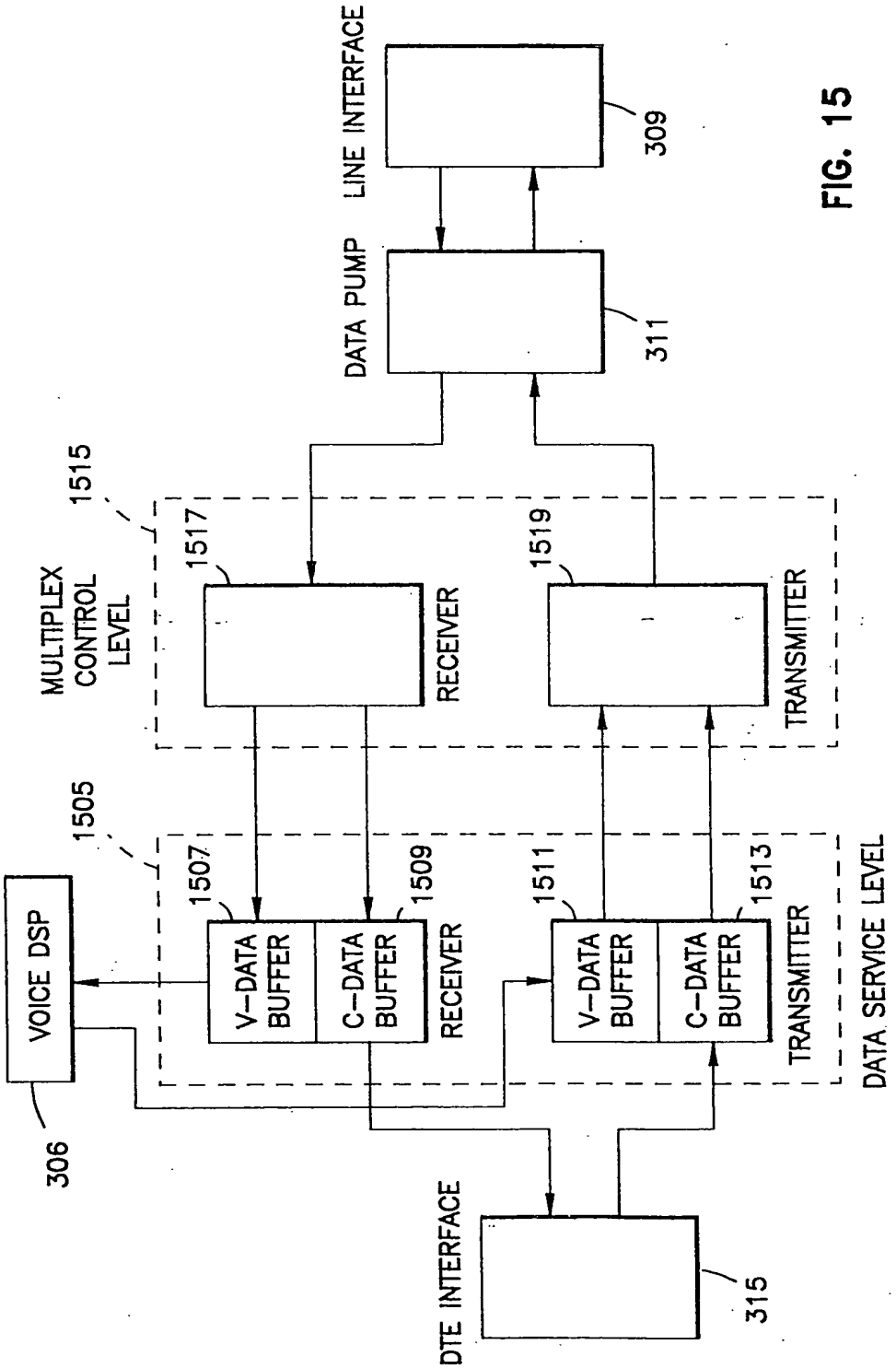


FIG. 15

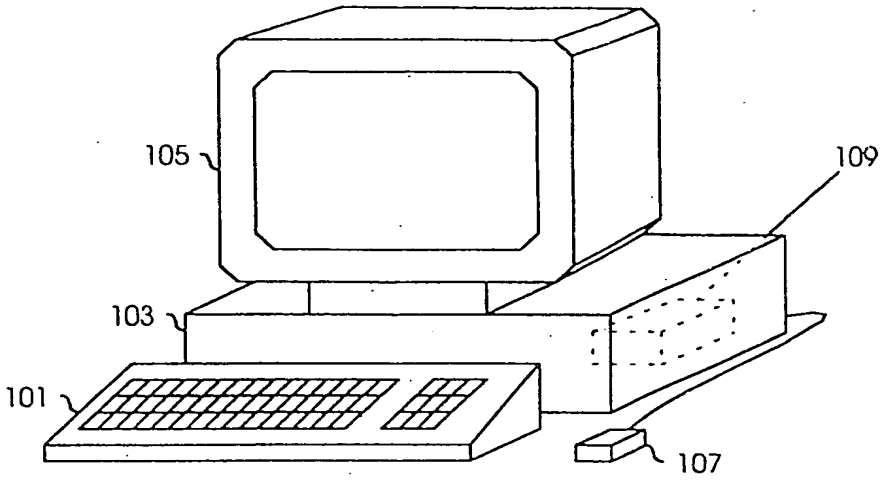

105
109
103
101
107

FIG. 16

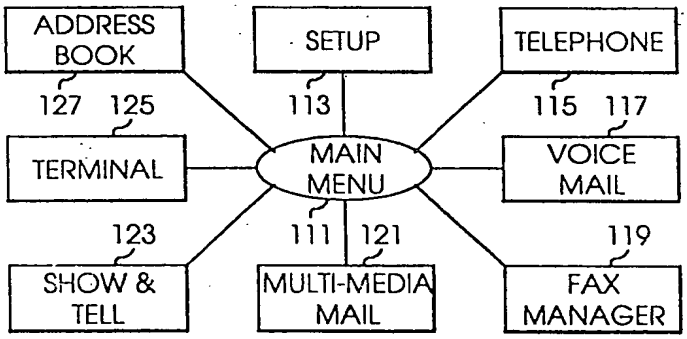

ADDRESS BOOK
127
125
SETUP
113
TELEPHONE
115
117
TERMINAL
MAIN MENU
VOICE MAIL
123
111
121
119
SHOW & TELL
MULTI-MEDIA MAIL
FAX MANAGER

FIG. 17

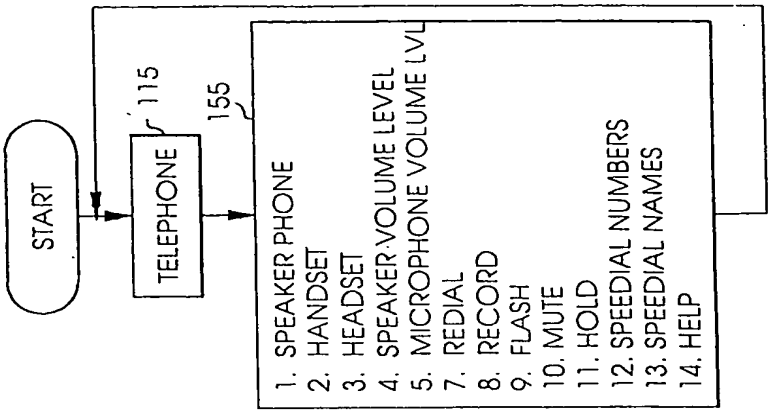


FIG. 21

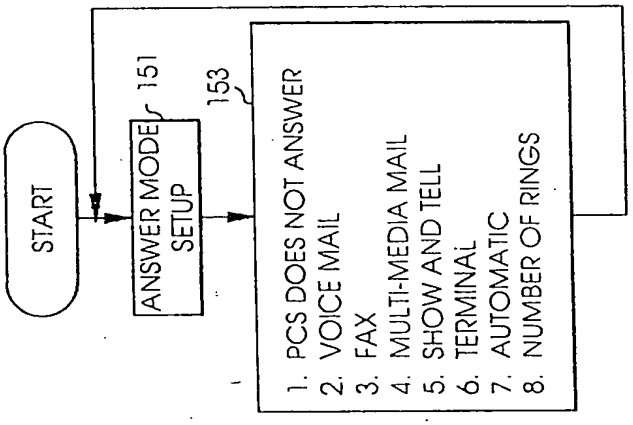


FIG. 20

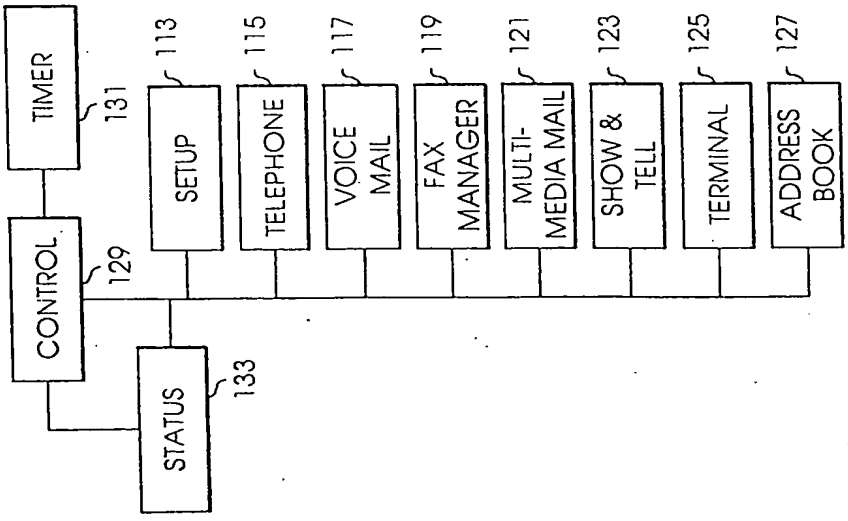


FIG. 18

10,050,814,360

T0250"8h/8S/60

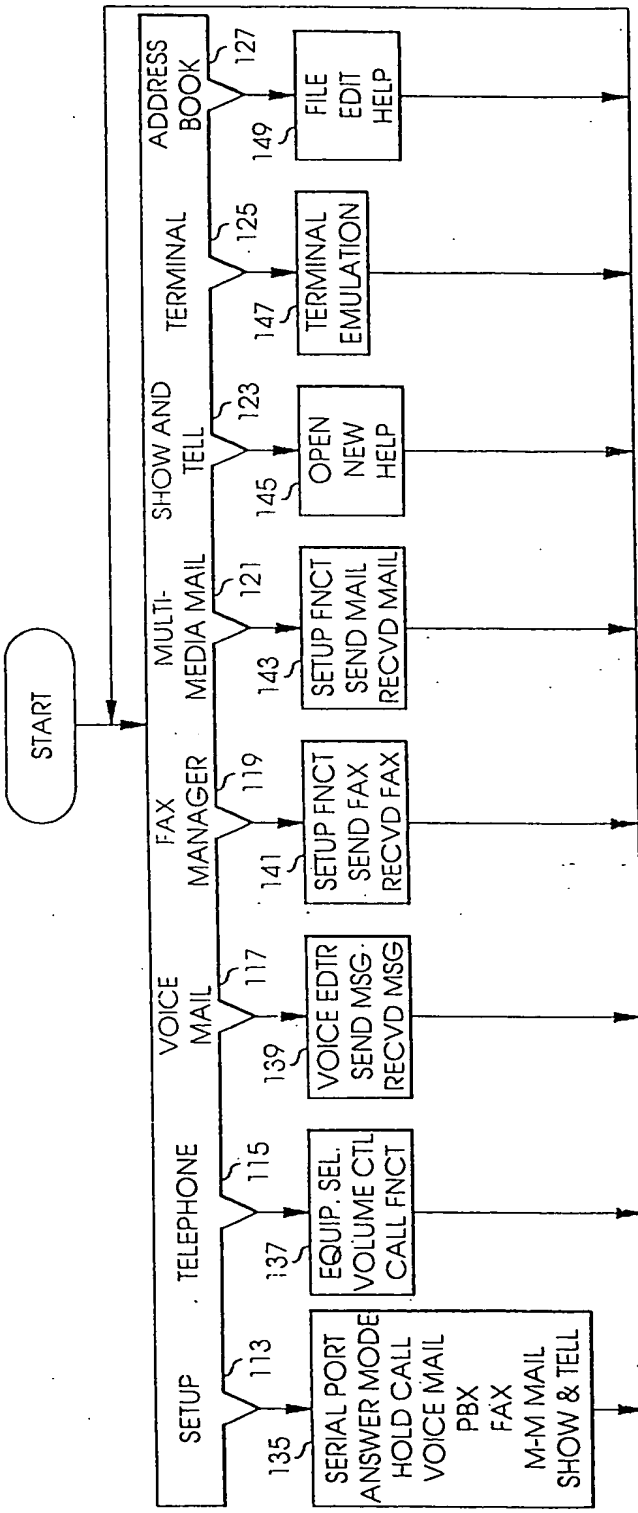


FIG. 19

T02050 "8h289260

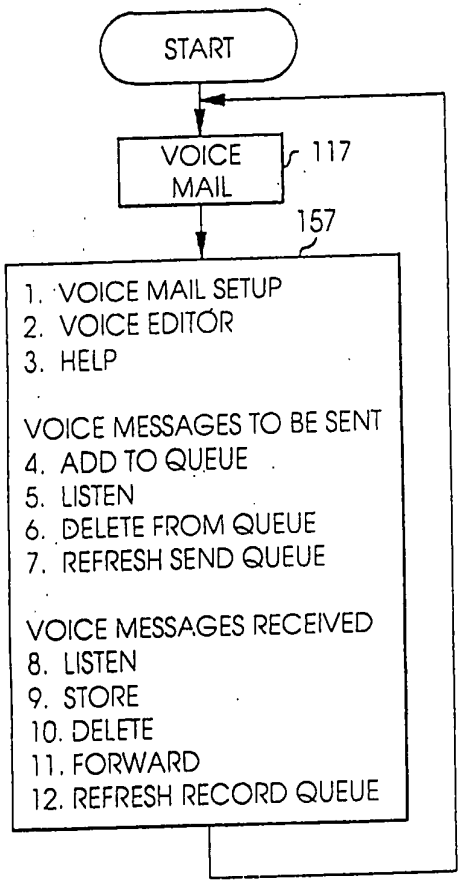


FIG. 22

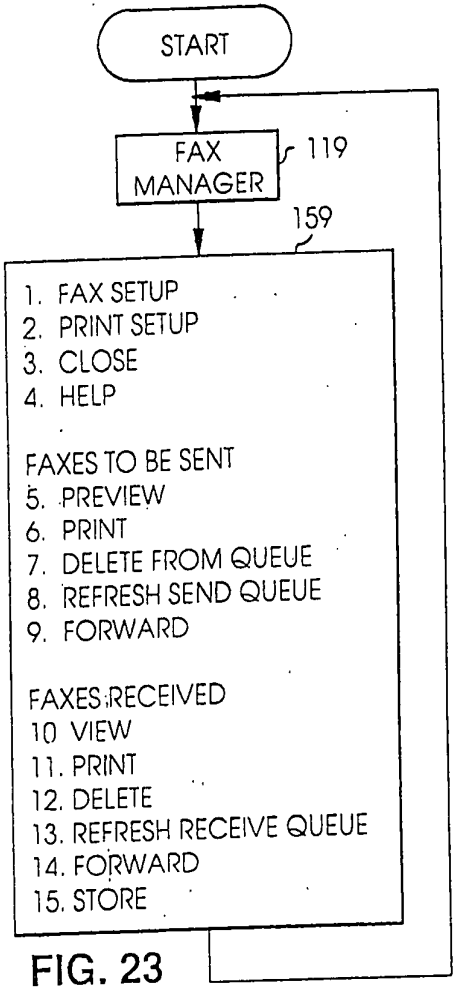


FIG. 23

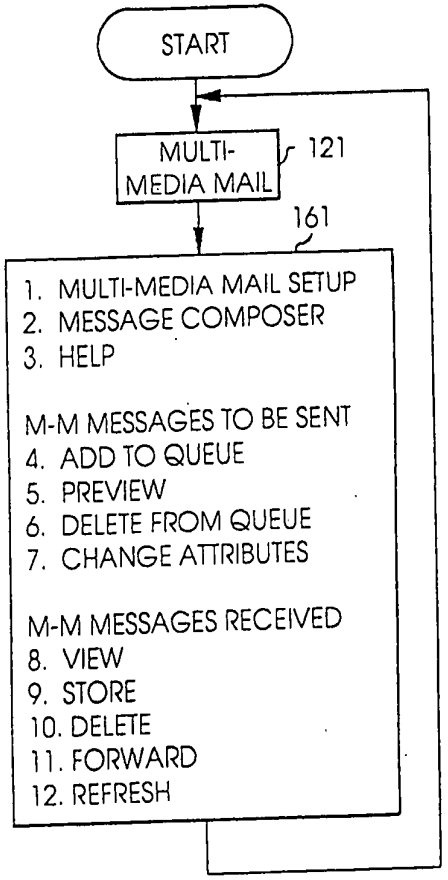


FIG. 24

Title: COMPUTER-BASED MULTI-MEDIA COMMUNICATIONS SYSTEM AND METHOD
Applicant(s): Ra[redacted] Sharma et al.
Serial No.: 09/7[redacted] Filed: January 24, 2001 Docket: 28[redacted]0101
Express Mail No.: EL 776904901 US Sheet 30 of 52

EL 776904901 US

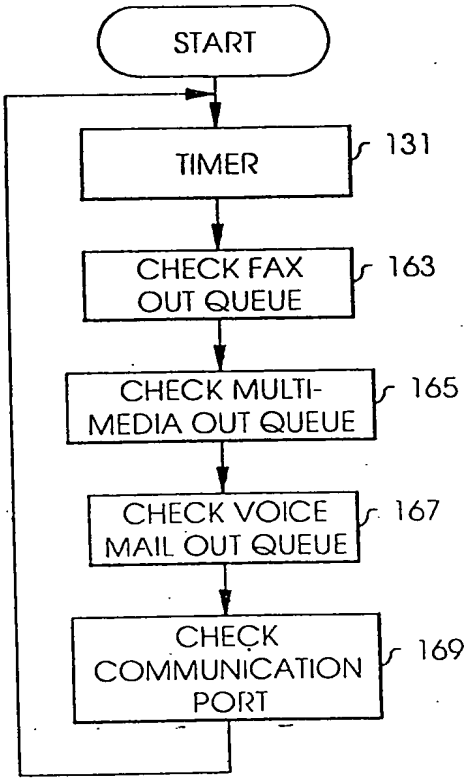


FIG. 25

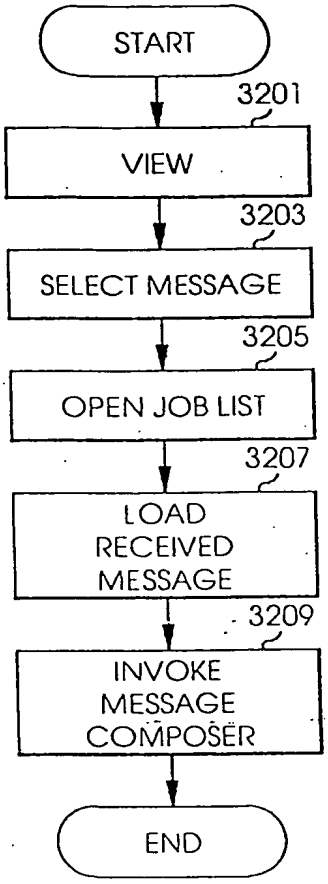


FIG. 33

D:\2005\285.002\285.002.dgn

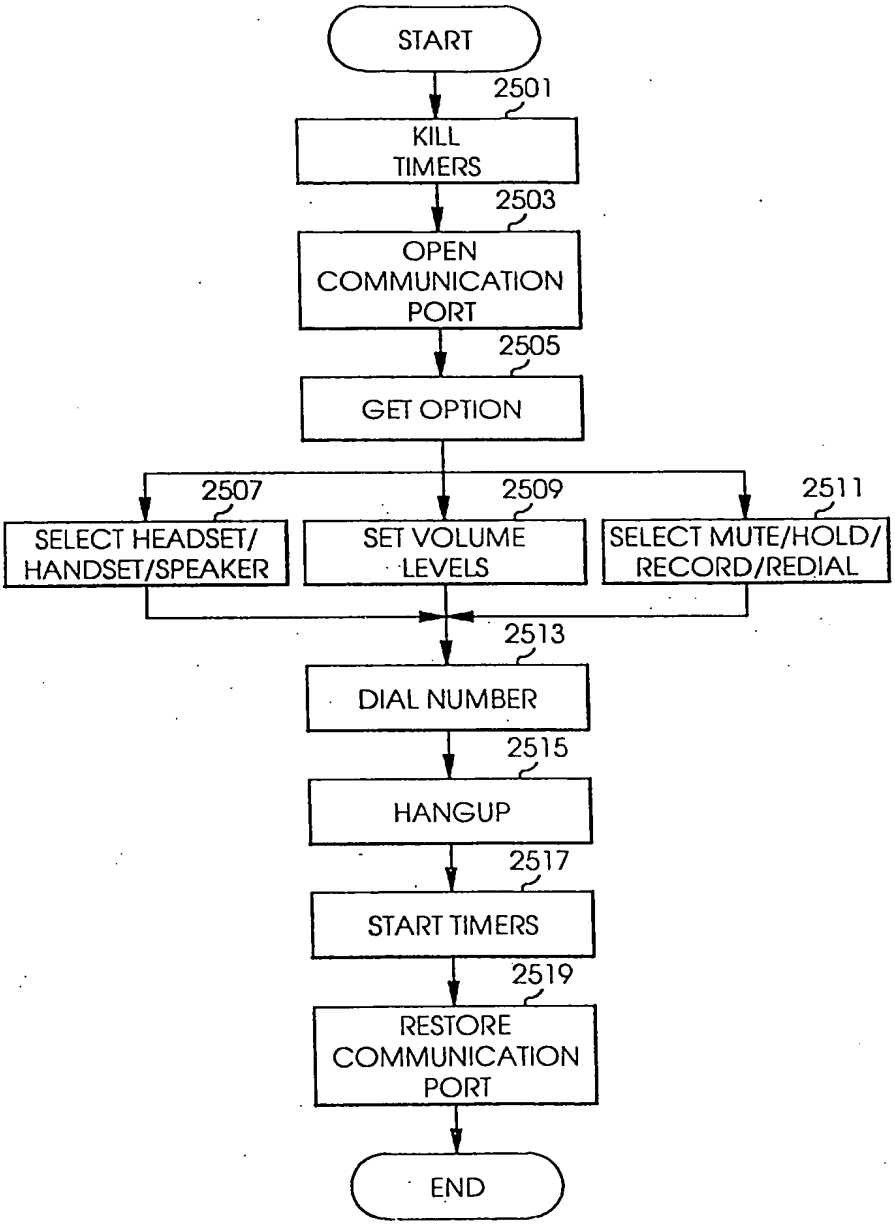


FIG. 26

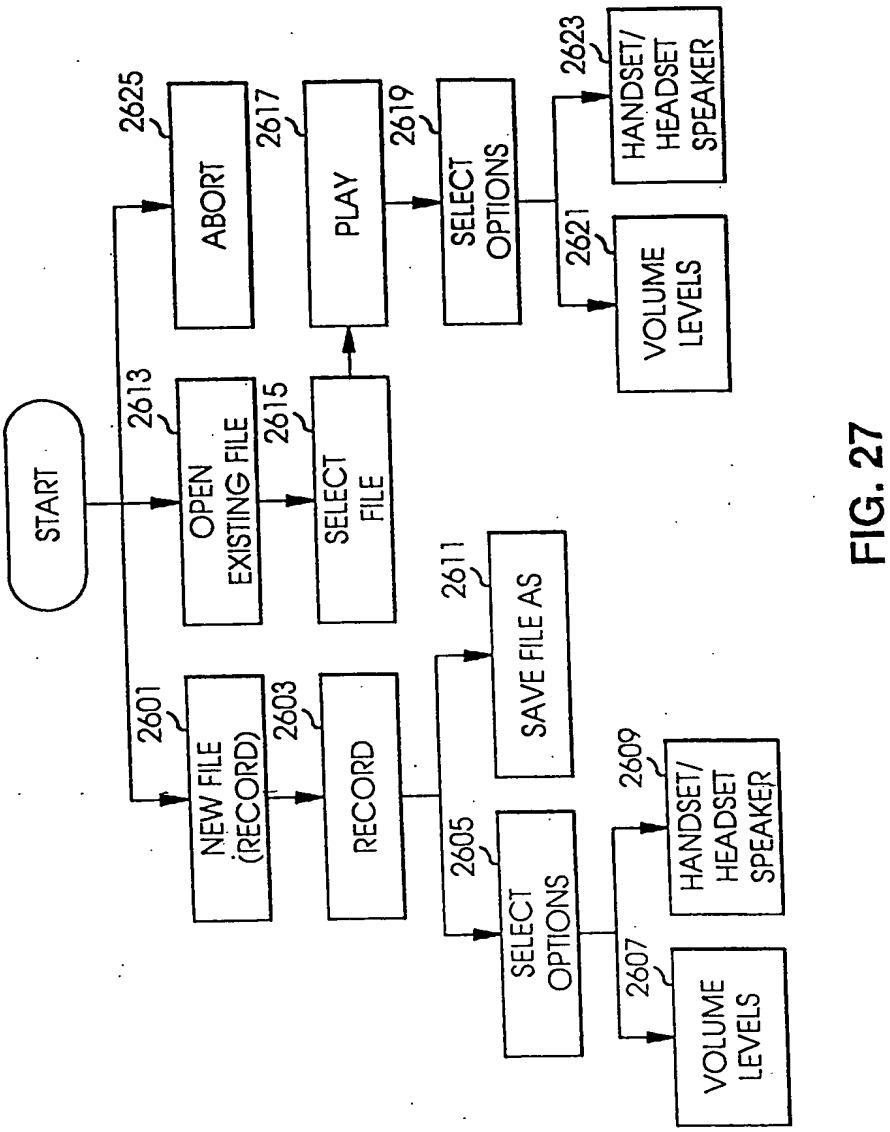

START
2613
OPEN EXISTING FILE
2615
SELECT FILE
2625
ABORT
2617
PLAY
2619
SELECT OPTIONS
2623
HANDSET/ HEADSET SPEAKER
2621
VOLUME LEVELS
2601
NEW FILE (RECORD)
2603
RECORD
2611
SAVE FILE AS
2605
SELECT OPTIONS
2609
HANDSET/ HEADSET SPEAKER
2607
VOLUME LEVELS

FIG. 27

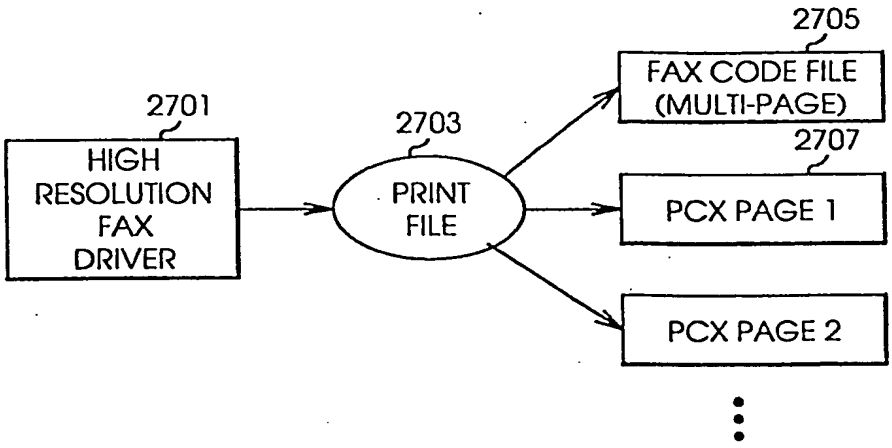

2705
FAX CODE FILE (MULTI-PAGE)
2701
HIGH RESOLUTION FAX DRIVER
2703
PRINT FILE
2707
PCX PAGE 1
PCX PAGE 2

FIG. 28

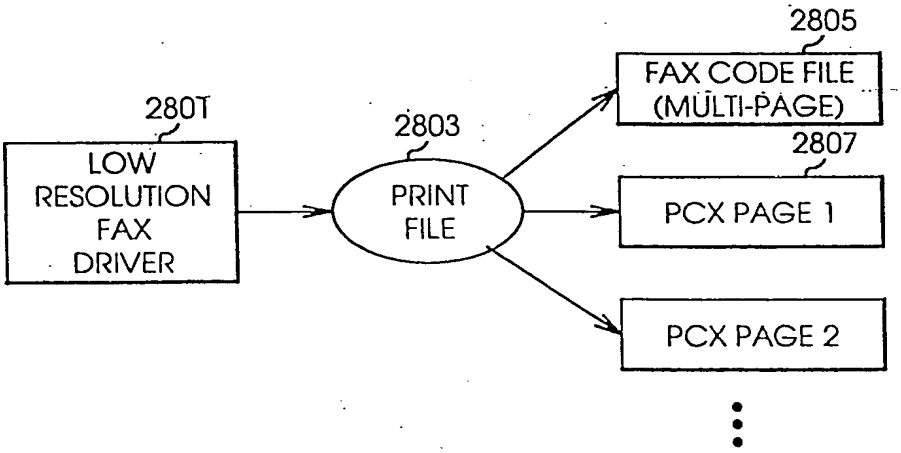

2805
FAX CODE FILE (MULTI-PAGE)
280T
LOW RESOLUTION FAX DRIVER
2803
PRINT FILE
2807
PCX PAGE 1
PCX PAGE 2

FIG. 29

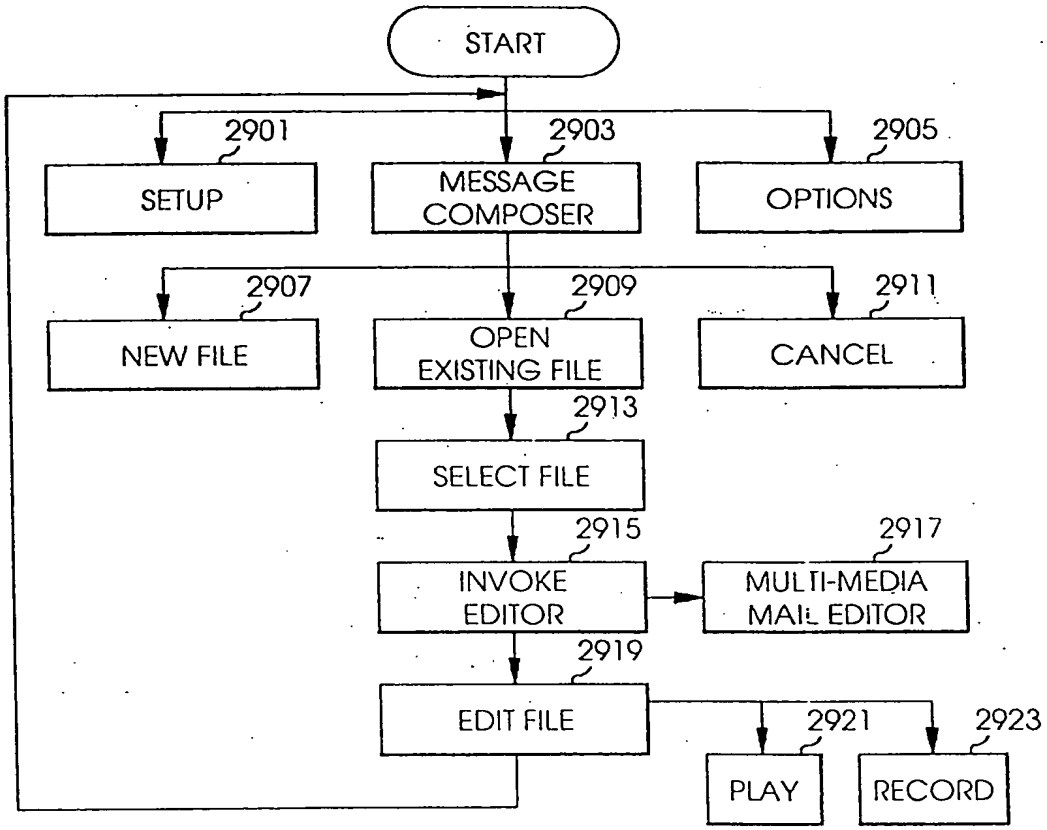

START
2901
SETUP
2903
MESSAGE COMPOSER
2905
OPTIONS
2907
NEW FILE
2909
OPEN EXISTING FILE
2911
CANCEL
2913
SELECT FILE
2915
INVOKE EDITOR
2917
MULTI-MEDIA MAIL EDITOR
2919
EDIT FILE
2921
PLAY
2923
RECORD

FIG. 30

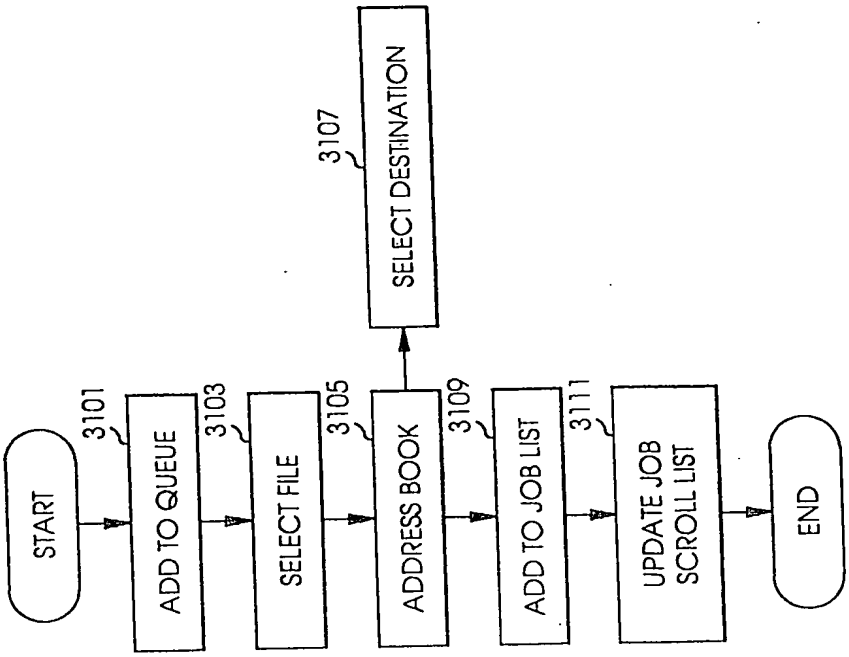

START
3101
ADD TO QUEUE
3103
SELECT FILE
3105
ADDRESS BOOK
3107
SELECT DESTINATION
3109
ADD TO JOB LIST
3111
UPDATE JOB SCROLL LIST
END

FIG. 32

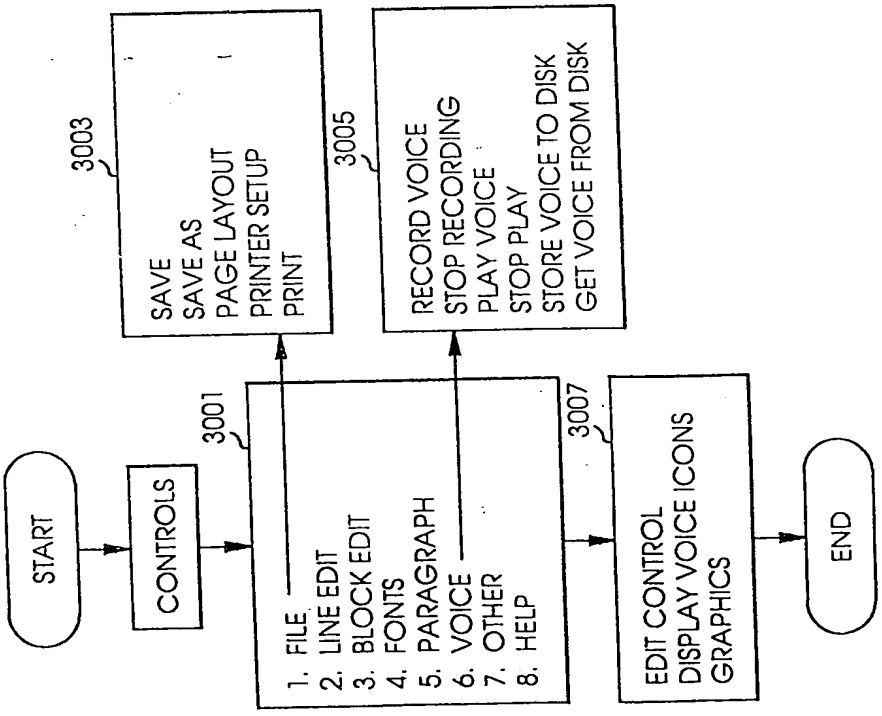

START
CONTROLS
3001
1. FILE
2. LINE EDIT
3. BLOCK EDIT
4. FONTS
5. PARAGRAPH
6. VOICE
7. OTHER
8. HELP
3003
SAVE
SAVE AS
PAGE LAYOUT
PRINTER SETUP
PRINT
3005
RECORD VOICE
STOP RECORDING
PLAY VOICE
STOP PLAY
STORE VOICE TO DISK
GET VOICE FROM DISK
3007
EDIT CONTROL
DISPLAY VOICE ICONS
GRAPHICS
END

FIG. 31

EL776904901US

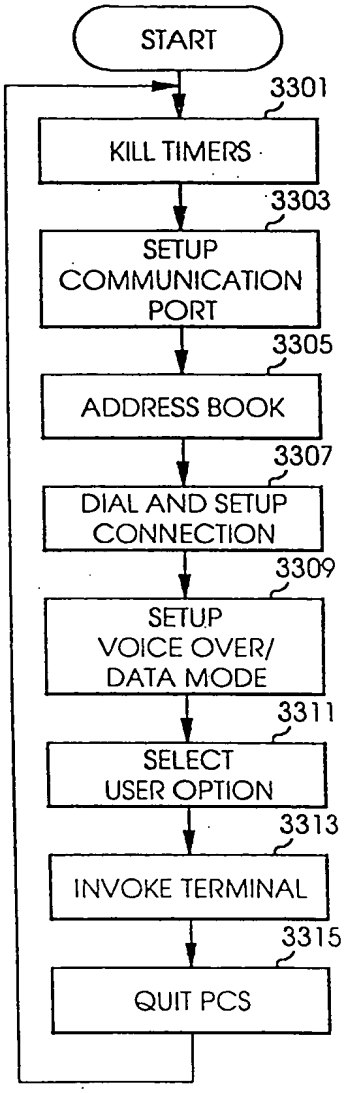


FIG. 34

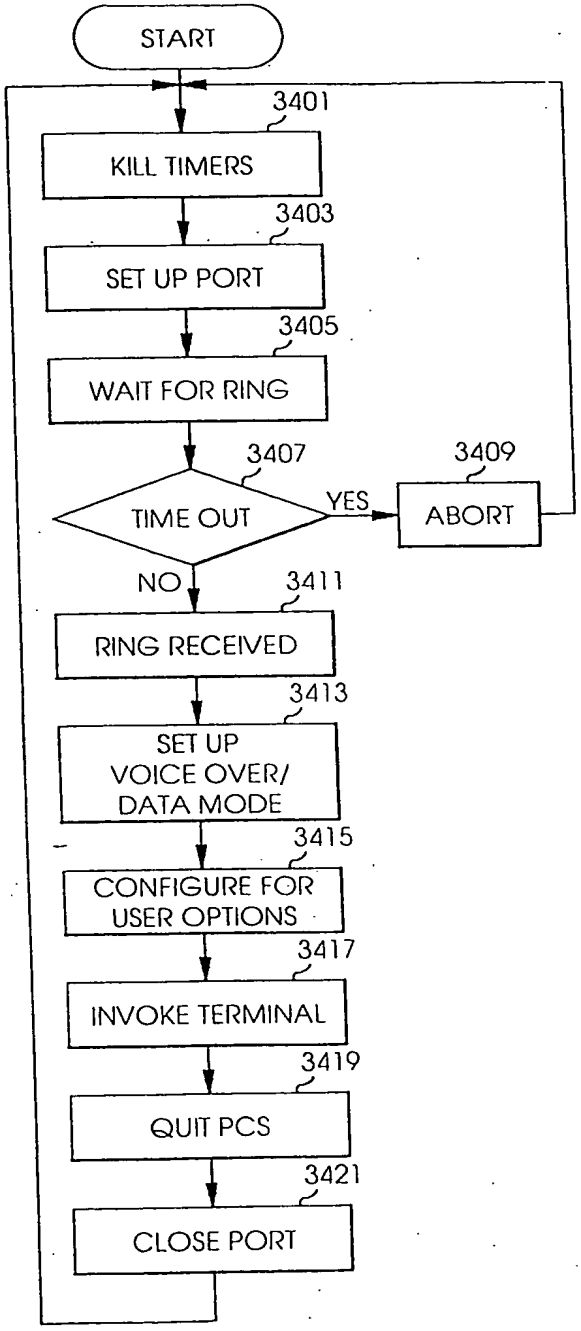

START
3401
KILL TIMERS
3403
SET UP PORT
3405
WAIT FOR RING
3407
TIME OUT
YES
3409
ABORT
NO
3411
RING RECEIVED
3413
SET UP VOICE OVER/ DATA MODE
3415
CONFIGURE FOR USER OPTIONS
3417
INVOKE TERMINAL
3419
QUIT PCS
3421
CLOSE PORT

FIG. 35

EL776904901US

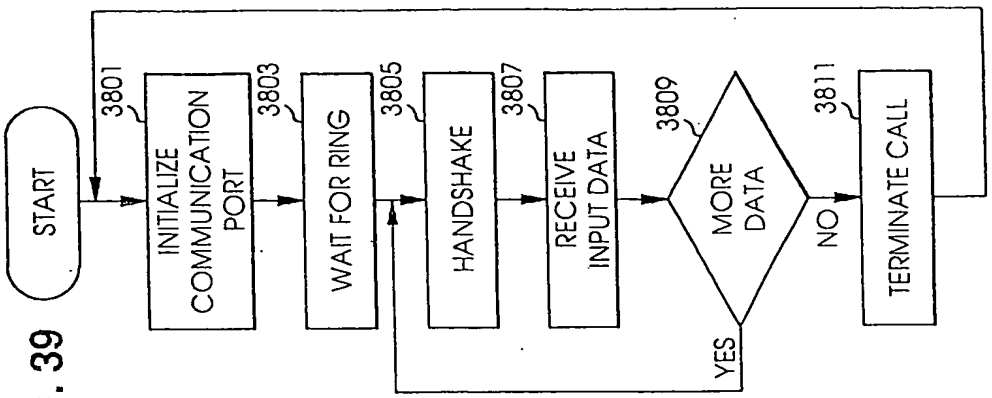


FIG. 39

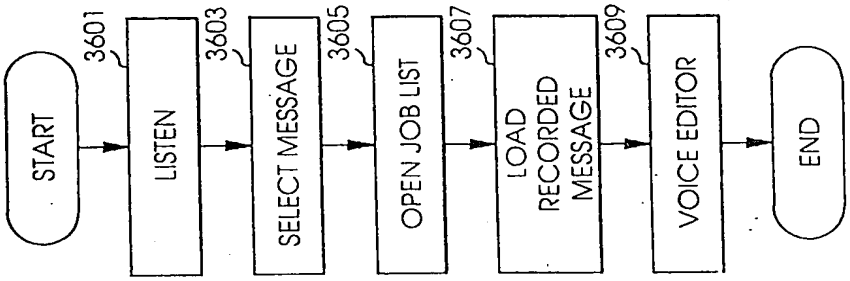


FIG. 37

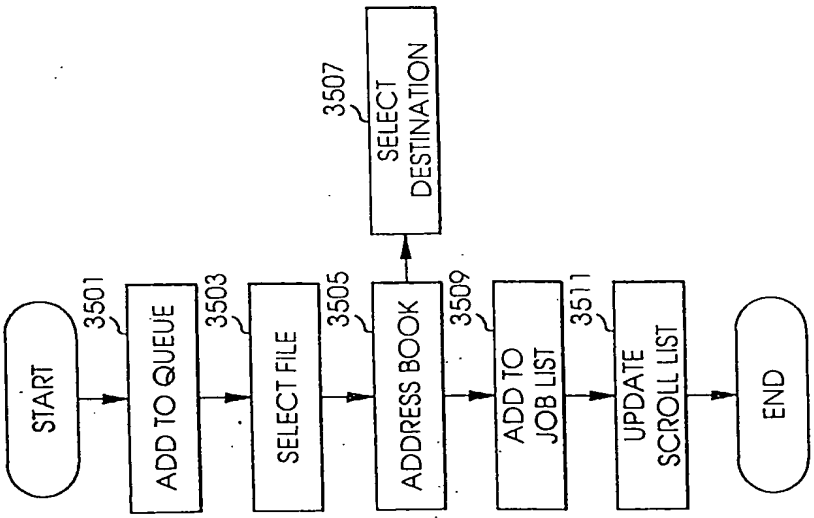


FIG. 36

PD-0010-84785-0

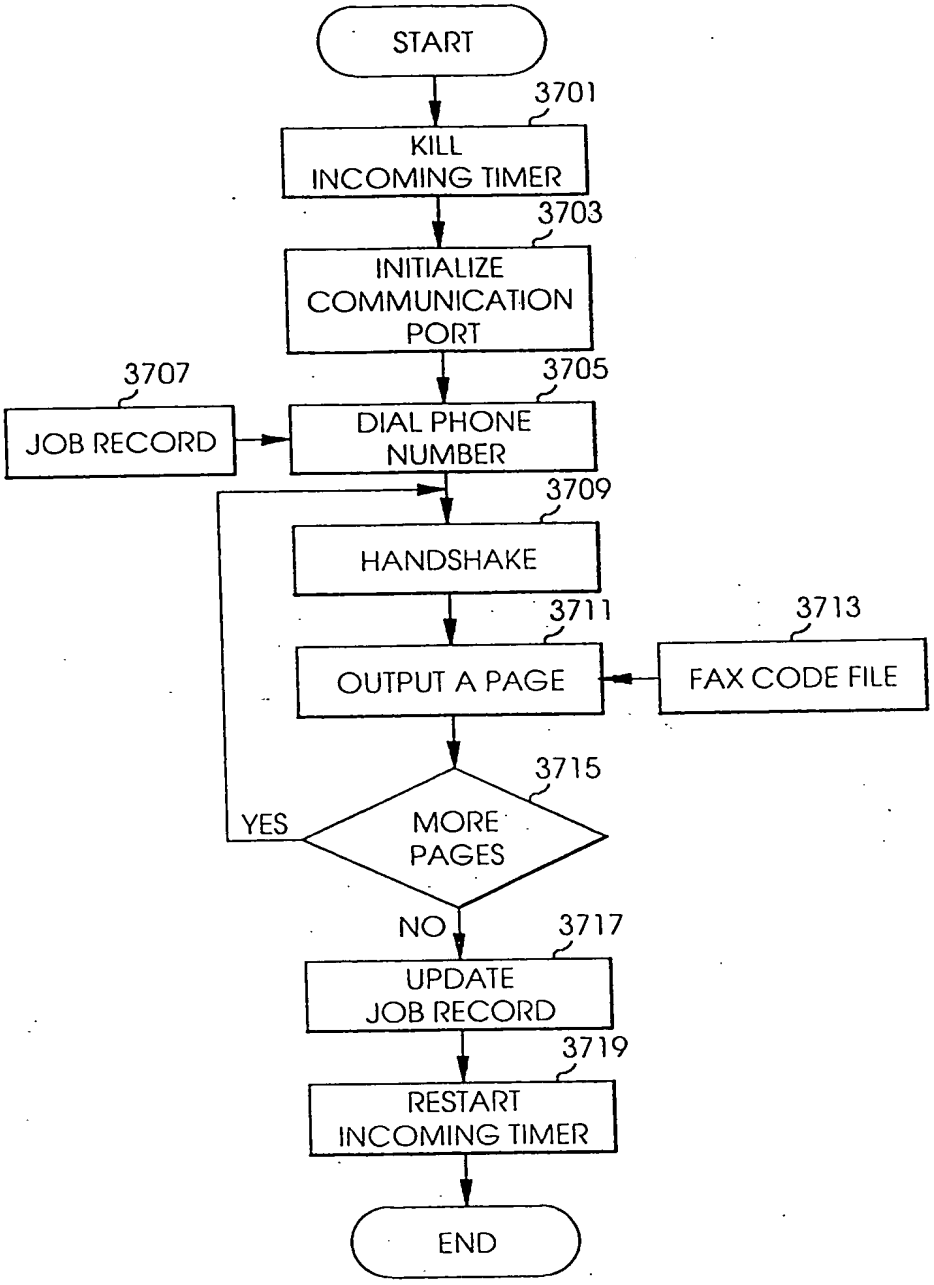


FIG. 38

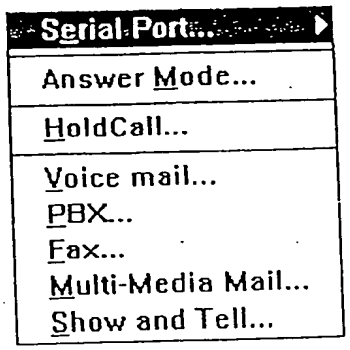


FIG. 40

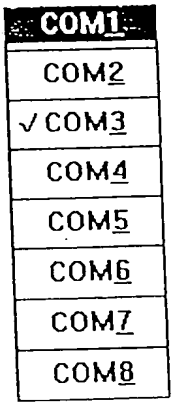


FIG. 41

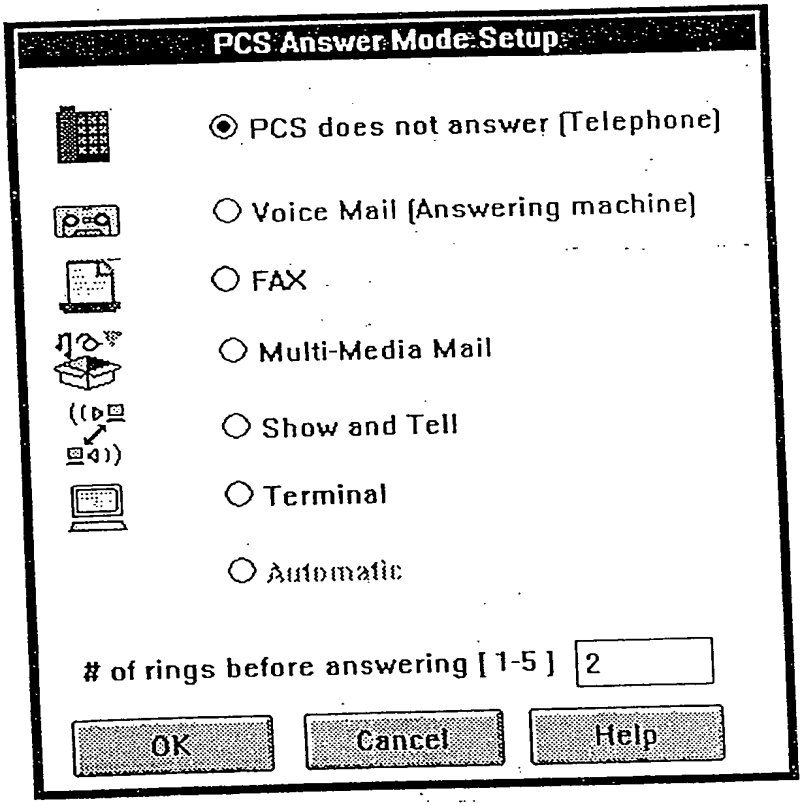


FIG. 42

10/20/03, EAST Version: 1.4.1

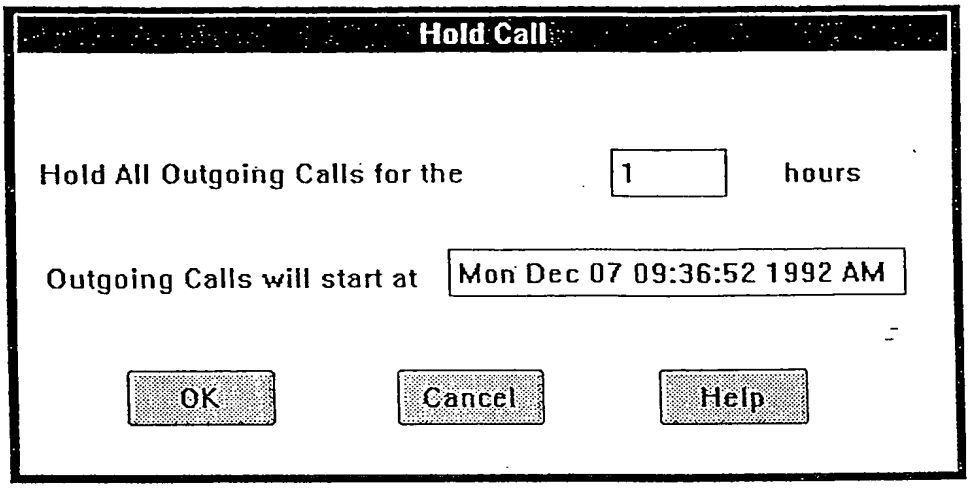


FIG. 44

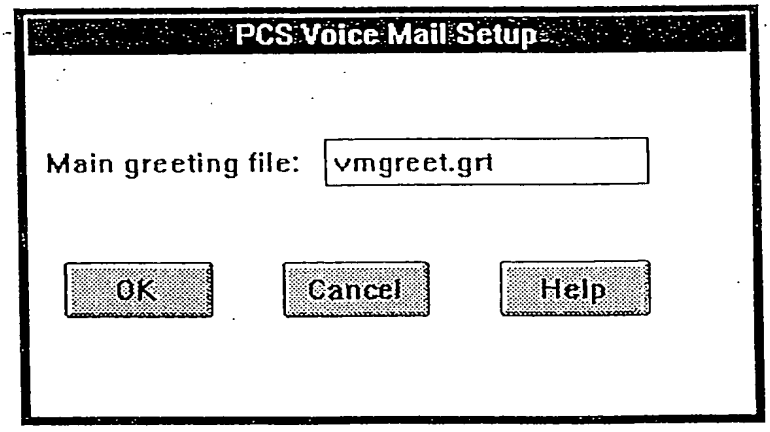


FIG. 43

T-2050-8742-8926-50

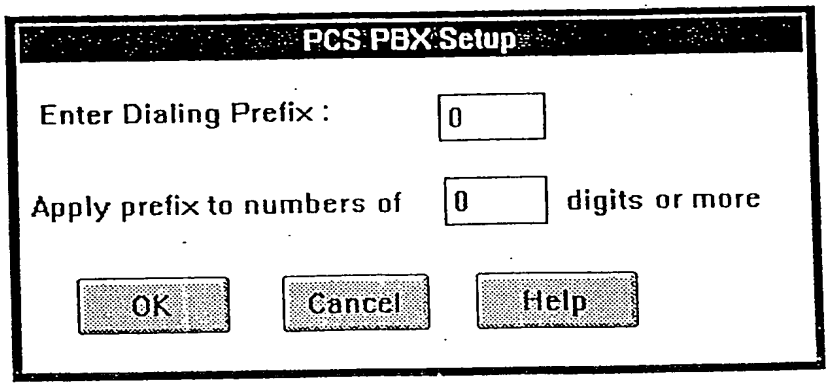


FIG. 45

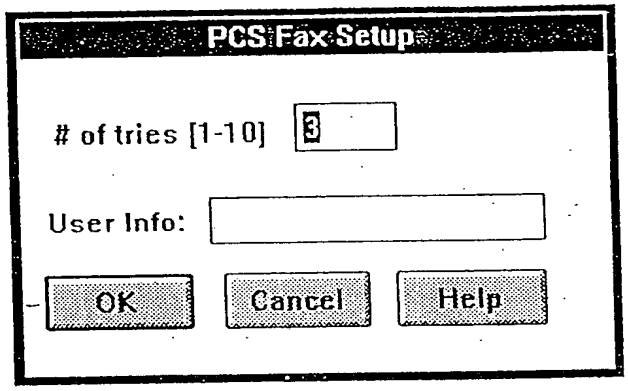


FIG. 46

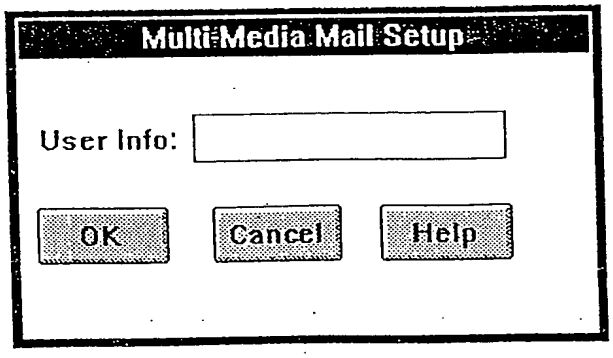


FIG. 47

10/05/04, 8:39:26 AM

EL776904901US

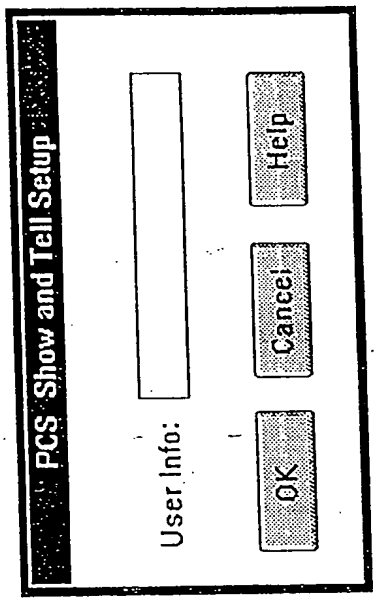


FIG. 48

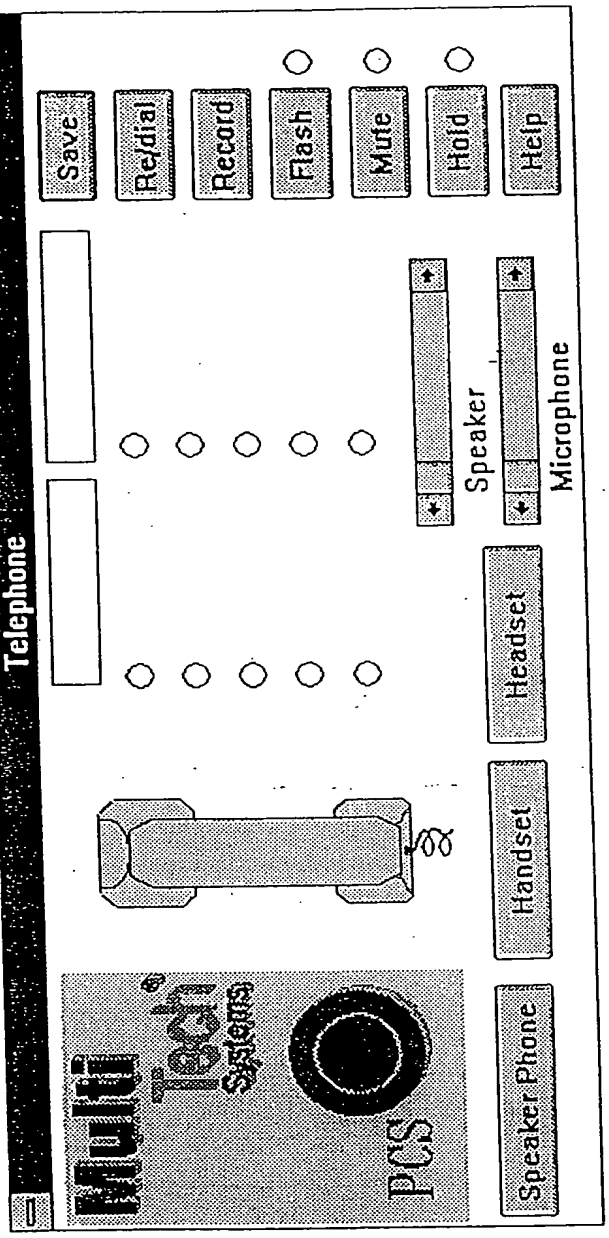


FIG. 49

T0450-8h2895

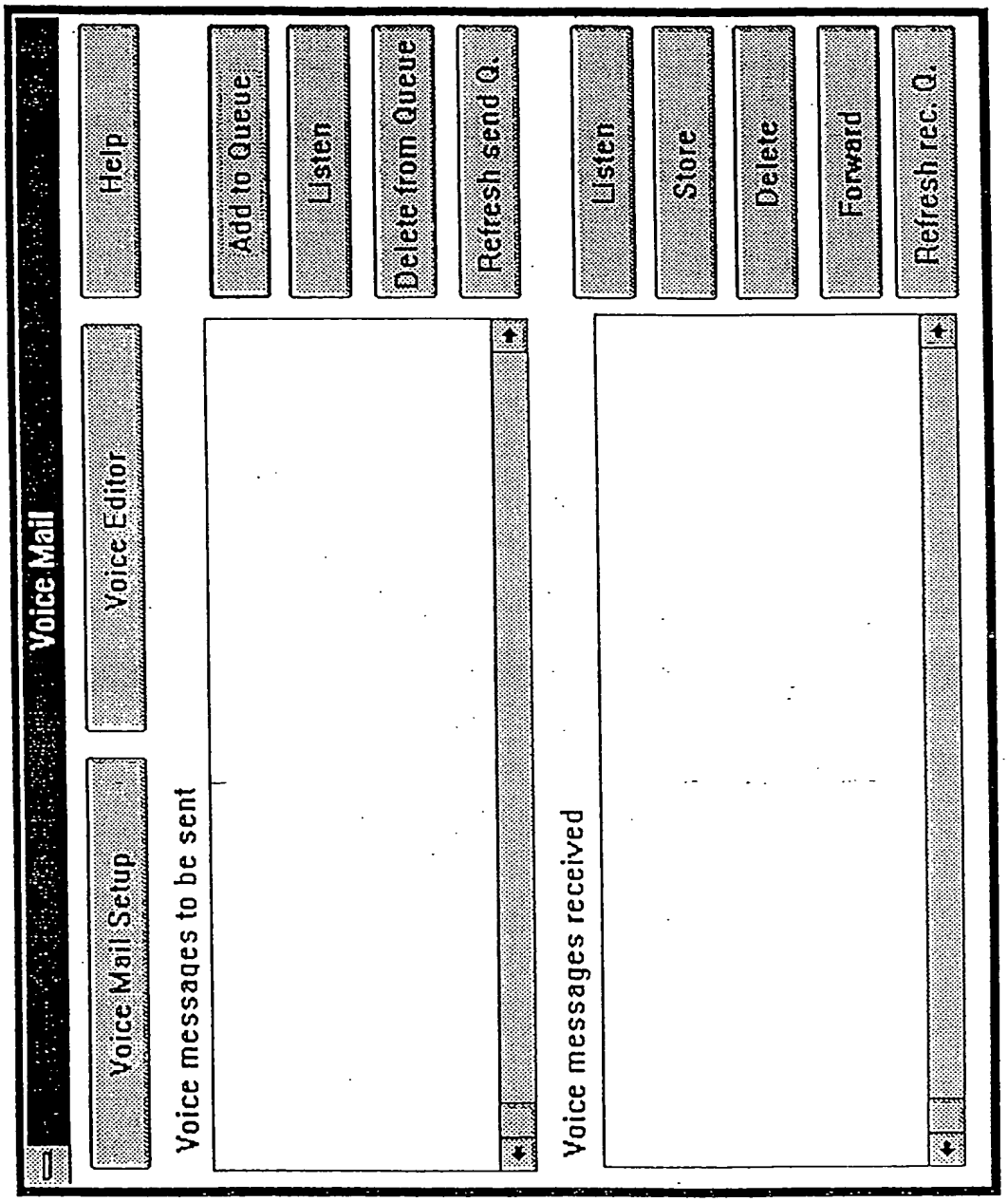


FIG. 50

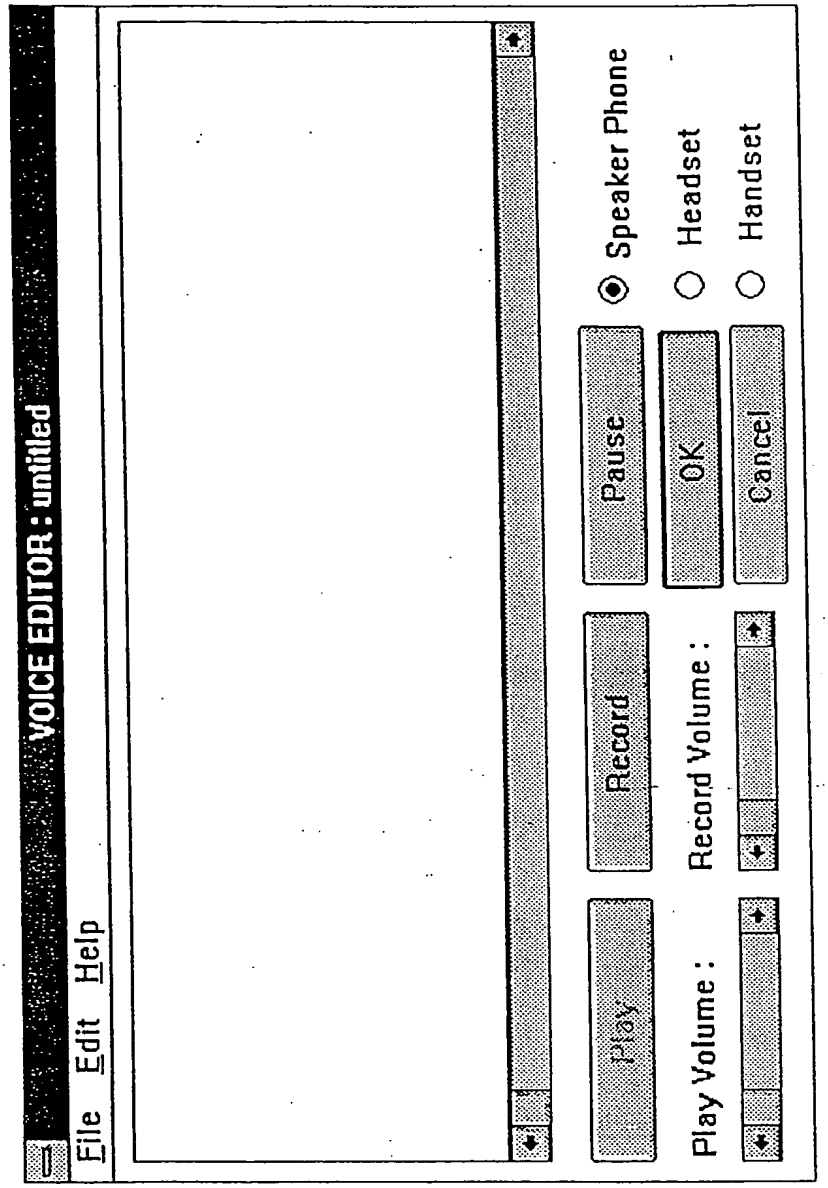

VOICE EDITOR : untitled
File Edit Help
Play
Record
Pause
OK
Cancel
Play Volume :
Record Volume :
Speaker Phone
Headset
Handset

FIG. 51

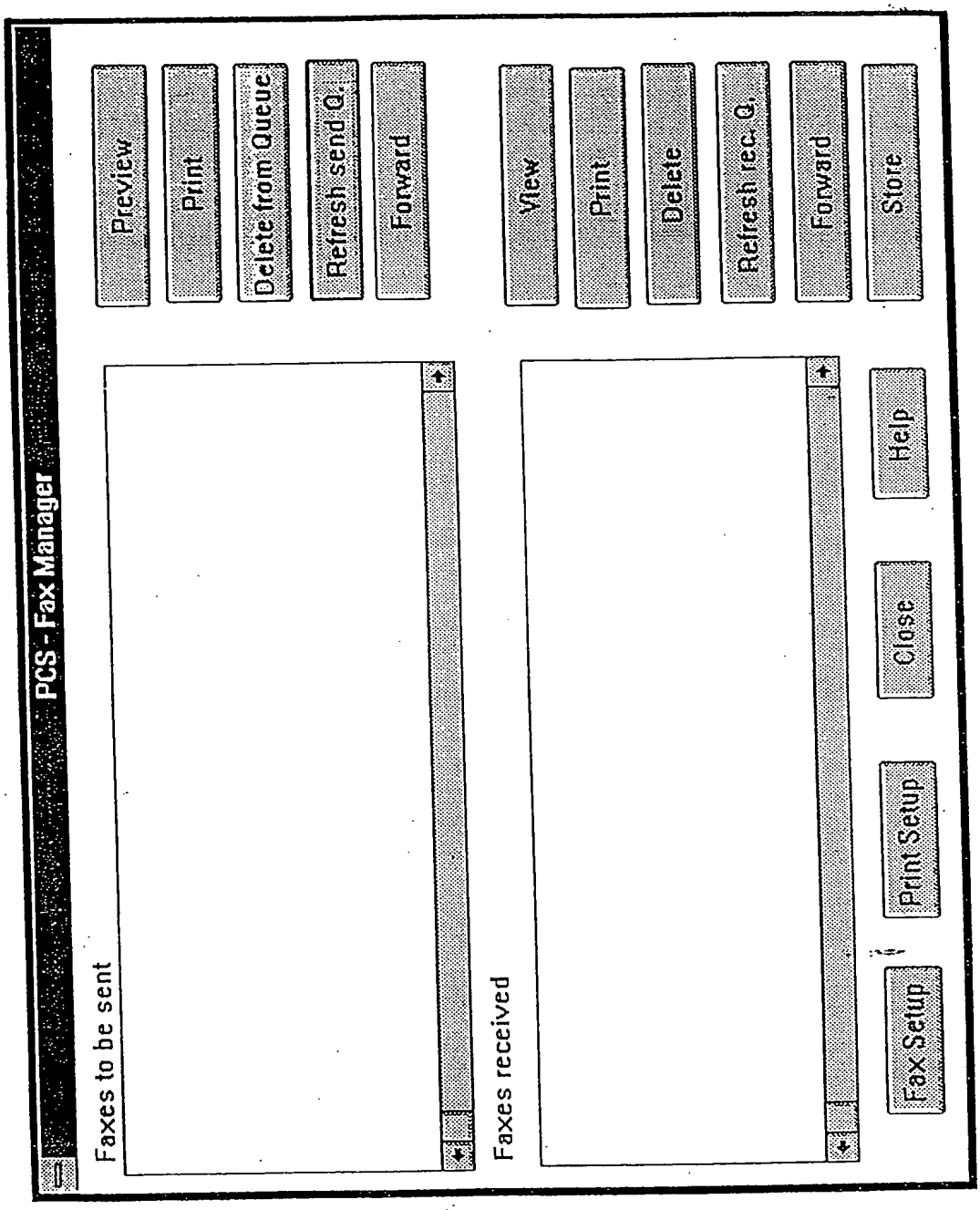


FIG. 52

10/050,849

P0/050 "84/89/60

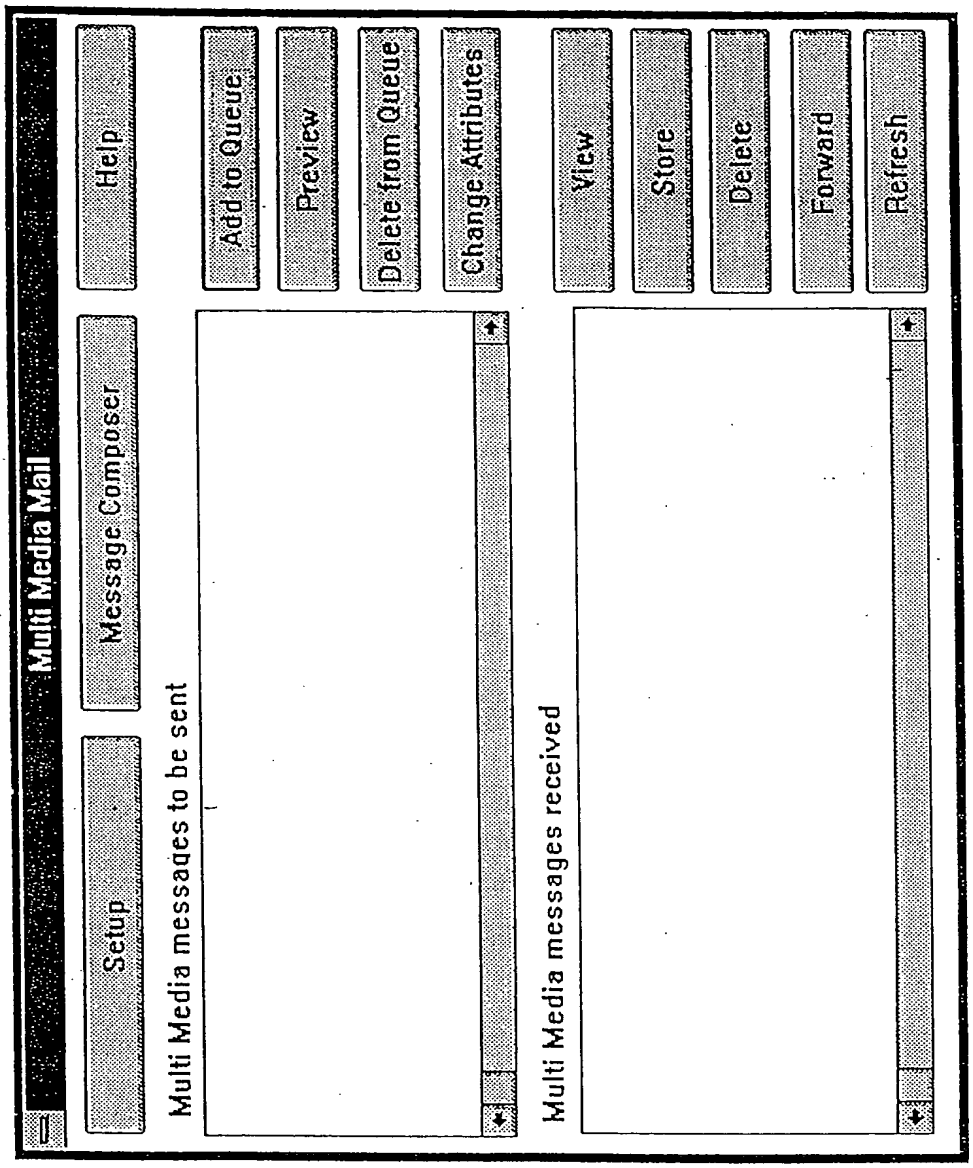


FIG. 53

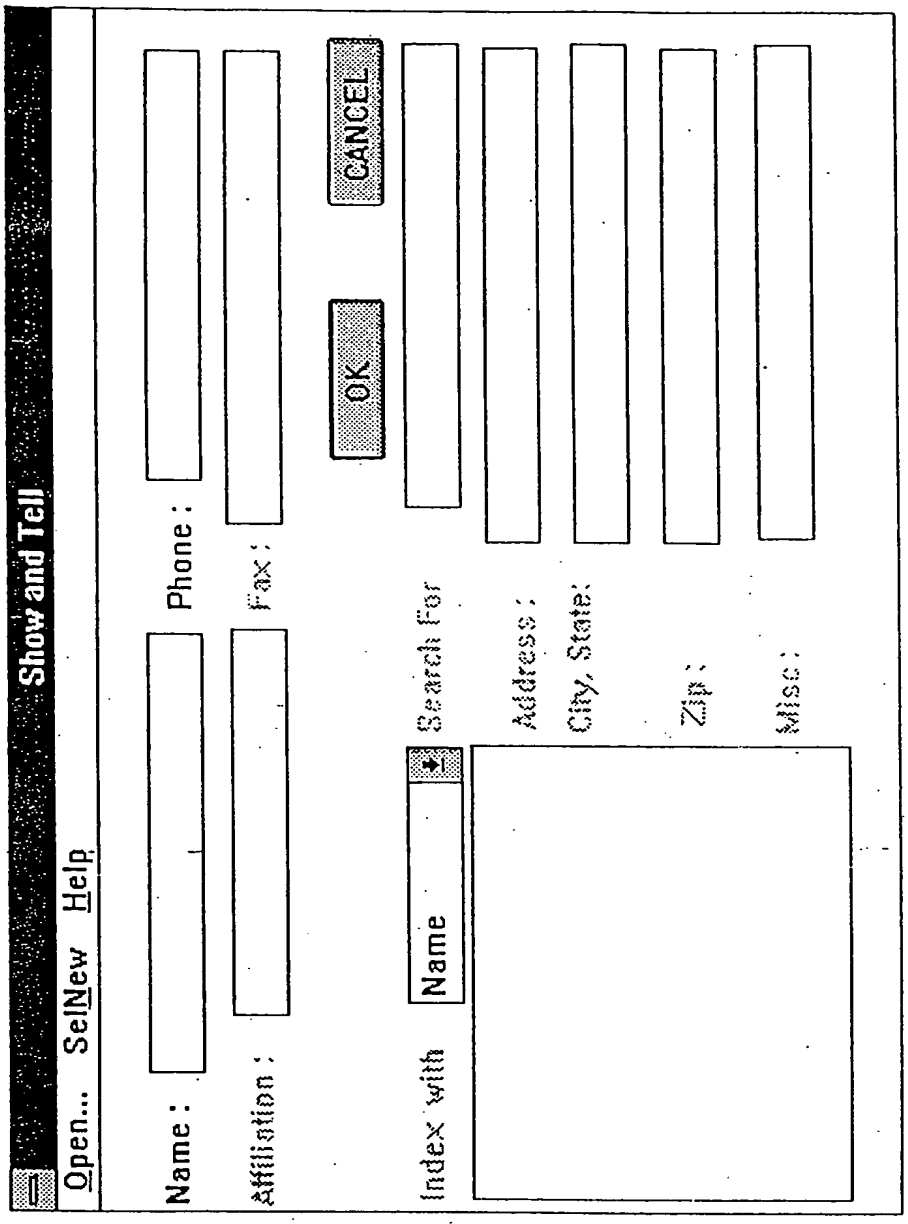


FIG. 54

10/050,894

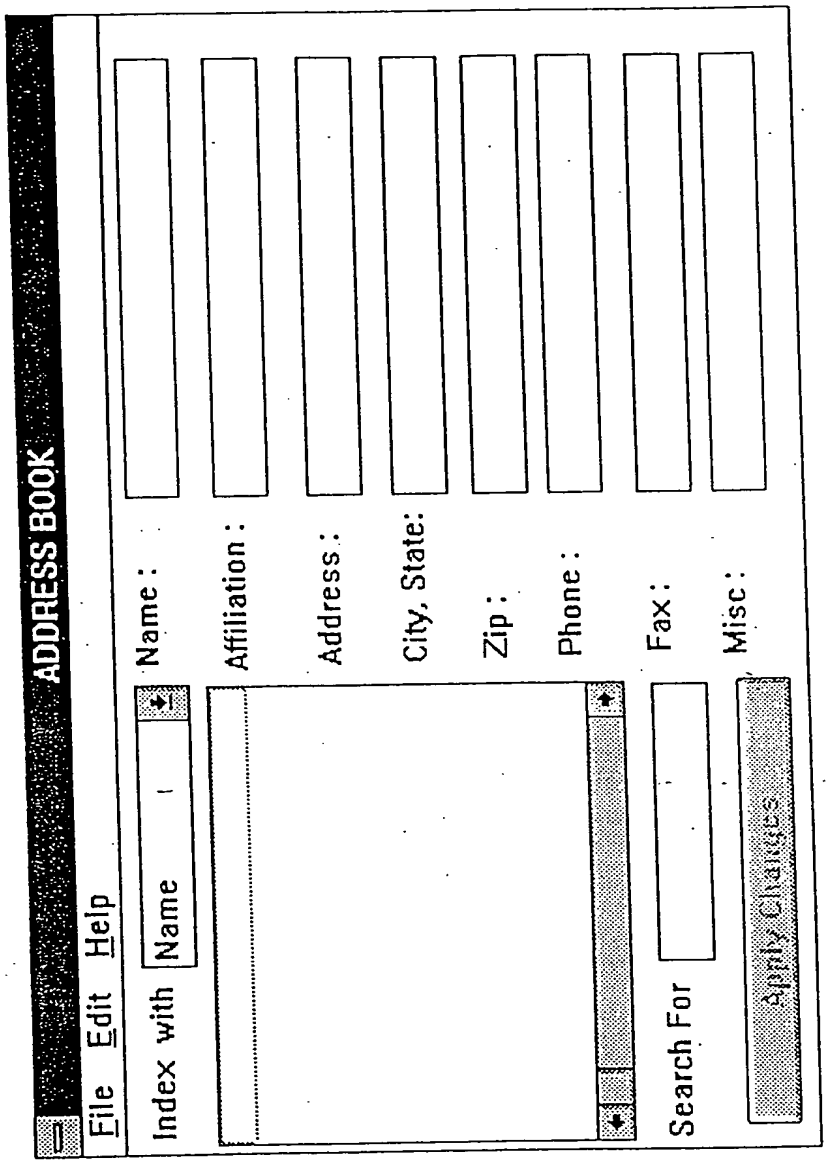


FIG. 55

TO/050 84/88/60

PD/050824/85260

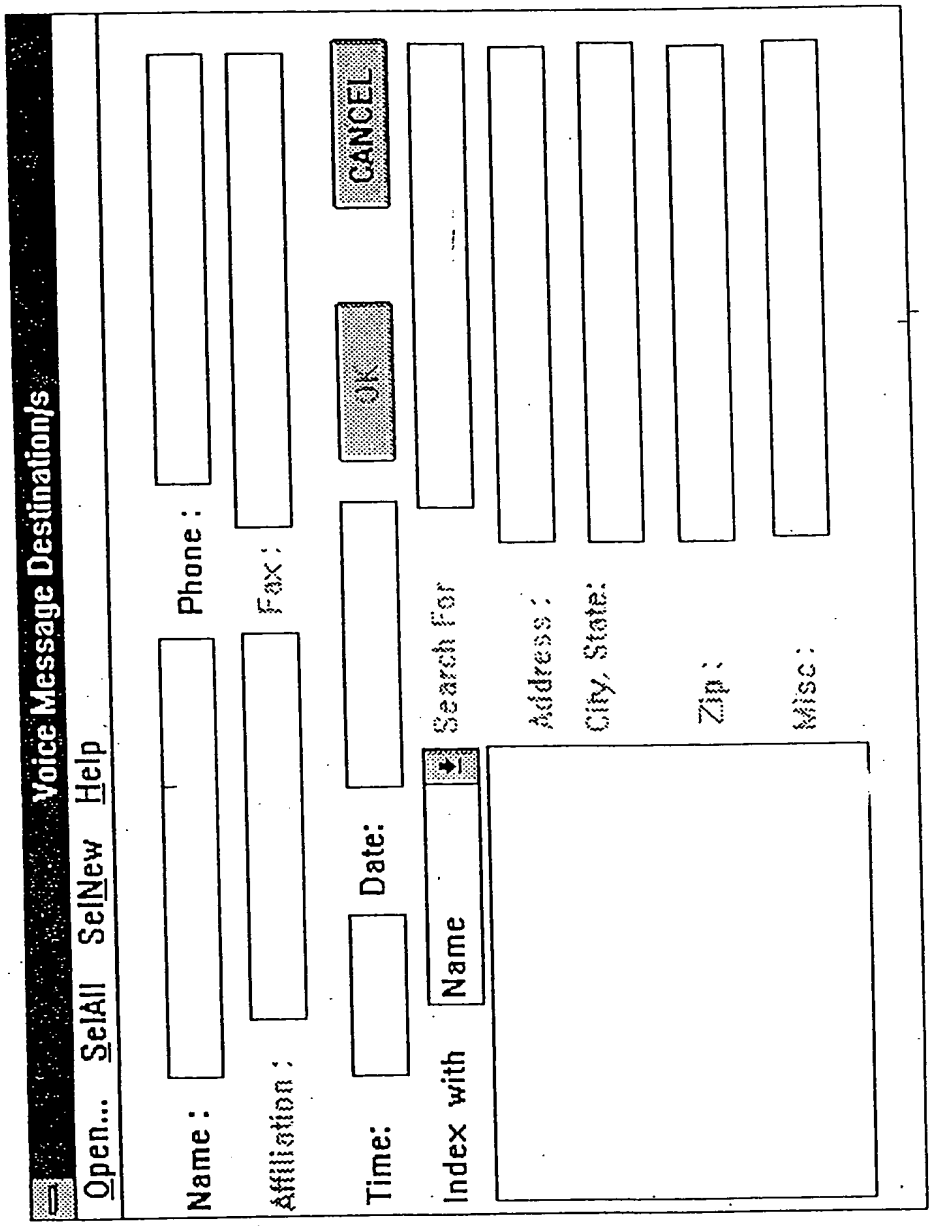


FIG. 56

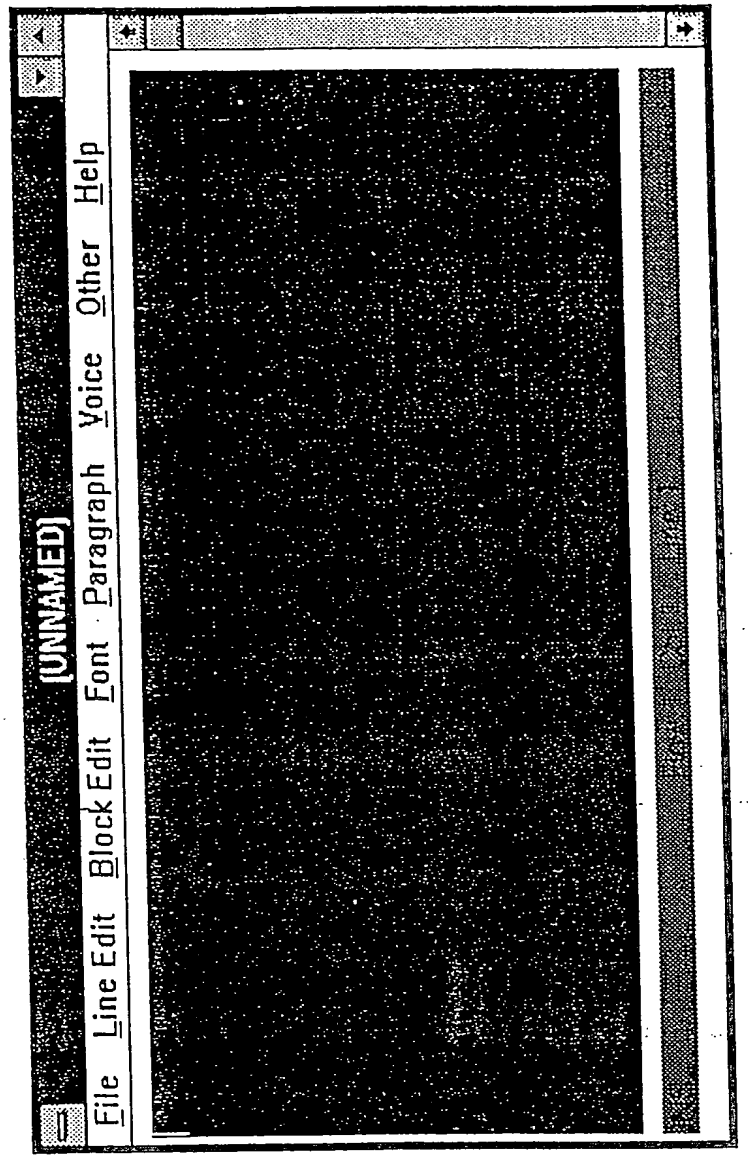


FIG. 57

EL776904901US